Mohs College 2007 Annual Meeting
May 3-6, 2007
Naples Grande Resort & Club
Naples, FL

Table of Contents

2008 Mohs College Annual Meeting Information .....p. 2
Mohs College Board of Directors.....p. 3
Mohs College Committees and Task Forces.....p. 3
Fellowship Training Director Listing.....p. 4
Welcome Messages..... p. 5-6
Program-at-a-Glance..... p. 7-9
Guest Speakers .....p. 10
Faculty and Guest Speaker Listing .....p. 11
CME Information..... p. 12-13
Faculty Disclosure..... p. 14-15
Scientific Program Schedule ..... p. 16-26
Poster Presentations..... p. 27-29
Abstracts..... p. 30-70
Naples Grande Floor Plan..... p. 71-72
Exhibitor Listing..... p. 73-76

Photos courtesy of the Naples Grande Resort & Club and the Greater Naples, Marco Island and Everglades Convention and Visitors Bureau.

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ACMS American College of Mohs Surgery

MOHS COLLEGE 40TH ANNUAL MEETING

HYATT REGENCY VANCOUVER

MAY 1-4, 2008

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Mohs College Committees and Task Forces - 2006-2007

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Frederic E. Mohs Award Committee

Frederick S. Fish, III, MD, Chair

Mohs Histotechnology Quality Assurance Committee

Elizabeth Billingsley, MD, Chair

Industry Relations Committee

Gary Lask, MD, Chair

Investment Committee

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Nominating Committee

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Mohs College 2006-2007 Fellowship Training Director Listing

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Philip Lawrence Bailin, MD
David S. Becker, MD
Anthony V. Benedetto, DO
Richard Gary Bennett, MD
Daniel Berg, MD
Marc D. Brown, MD
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Brian Cook, MD
Willis I. Cottel, MD
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Raymond G. Dufresne, Jr., MD
Yehuda D. Eliezri, MD
Michael J. Fazio, MD
Frederick S. Fish, III, MD
Franklin Paul Flowers, MD
Scott W. Fosko, MD
Algin B. Garrett, MD
Roy G. Geronemus, MD
Hugh M. Gloster, Jr., MD
David J. Goldberg, MD
Leonard Harry Goldberg, MD
Glenn D. Goldman, MD
Glenn D. Goldstein, MD
Donald J. Grande, MD
Steven S. Greenbaum, MD
Hubert T. Greenway, Jr., MD
Roy C. Grekin, MD
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Christine M. Hayes, MD
George J. Hruza, MD
Timothy M. Johnson, MD
Larisa C. Kelley, MD
David E. Kent, MD
Pearon G. Lang, Jr., MD
Gary Lask, MD
Naomi Lawrence, MD
David J. Leffell, MD
Mary E. Maloney, MD
Victor J. Marks, MD
Michael W. McCall, MD
J. Ramsey Mellette, Jr., MD
Gary D. Monheit, MD
Greg S. Morganroth, MD
Ronald L. Moy, MD
Bruce R. Nelson, MD
Tri H. Nguyen, MD
Suzanne Olbricht, MD
Ida F. Orengo, MD
Robert D. Paver, MD
Steven A. Proper, MD
Michael L. Ramsey, MD
Desiree Ratner, MD
Perry Robins, MD
Randall K. Roenigk, MD
Gary S. Rogers, MD
Thomas E. Rohrer, MD
Paul J.M. Salmon, MD
Roberta D. Sengelmann, MD
Daniel M. Siegel, MD
Ronald J. Siegle, MD
Stephen Ningta Snow, MD
Thomas Stasko, MD
Neil A. Swanson, MD
R. Stan Taylor, III, MD
Abel Torres, MD
Carl Vinciullo, MD
Carl V. Washington, Jr., MD
J. Michael Wentzell, MD
Nathalie C. Zeitouni, MD
John A. Zitelli, MD
David M. Zloty, MD

Dear College Members and Colleagues,

On behalf of the Mohs College Board of Directors, it is my pleasure to welcome you to Naples and the 39th Annual Meeting of the College.

Founded in 1967 by Dr. Frederic E. Mohs and colleagues, the College marks its 40th anniversary this year. We encourage you to attend the meeting to help us celebrate this landmark event. To commemorate this special year, the College will be hosting a Gala on Friday evening. Details about the event are provided in this book.

In keeping with the celebration of our 40th year, the College proudly announces a name change from the American College of Mohs Micrographic Surgery and Cutaneous Oncology (ACMMSCO) to the American College of Mohs Surgery (ACMS). We also have a new logo (below) and a corresponding PR campaign which will be detailed along with the College's emerging strategic plan at the business meeting on Friday at 12 Noon. So please plan on attending.

ACMS American College of Mohs Surgery
Fellowship trained skin cancer and reconstructive surgeons

This year's annual meeting will run one day longer than the 2006 meeting, from 7:15 a.m. on Thursday morning to noon on Sunday. This extra day allows us to offer more morning-mini sessions, abstract presentations and general sessions than we had last year. Due to popular demand, Saturday afternoon will be open and is intended for you and your colleagues or family to enjoy the beautiful resort destination selected for the meeting.

I extend my special thanks and sincere appreciation to the Scientific Program Chair, Dr. Glenn Goldman, for the enormous amount of time and effort he has put into assembling a well-rounded and exceptional program. I also wish to thank members of the Scientific Program Committee: Drs. Sumaira Aasi, Leonard Dzubow, Duane Whitaker, and Ex-Officio Member, Jonathan Cook, for their contributions in planning this year's program.

In addition to an excellent program, the exhibit hall will provide members' access to companies with a variety of products and services. We encourage you to take advantage of their presence and visit the exhibits. We also hope you will be able to take some time to enjoy the beautiful ocean and natural habitats in the Naples area and perhaps play a round of golf on one of the many golf courses in the area. If you're not a golfer, many other options such as fishing, boating, swimming, tennis, shopping, and guided tours of the Everglades are available for your relaxation and enjoyment.

I hope to see you in Naples at what I believe will be an outstanding educational event.

Sincerely,

David G. Brodland, MD
President
ACMS

Dear Colleagues,

I am pleased to present to you the program of educational opportunities for the 2007 Mohs College Annual Meeting in Naples, Florida. The program includes a broad variety of topics that should augment your knowledge base and enhance your practice skills in both Mohs and dermatologic surgery. I hope you will find the educational content original and thought-provoking.

Special thanks go to Scientific Program Committee members: Drs. Sumaira Aasi, David Brodland, Leonard Dzubow, Duane Whitaker, and Ex-Officio Member, Jonathan Cook, for their valuable insights and hard work that went into planning this year's dynamic program.

The committee is enthusiastic about our invited guest speakers: Dr. Peter Hilger, nationally recognized Facial Plastic Surgeon from the University of Minnesota; and Dr. Douglas Reintgen, Director of the Lakeland Regional Cancer Center in Lakeland, FL and widely-recognized surgical oncologist. Dr. Hilger will discuss Facial Reconstruction Emphasizing Aesthetic Values during his guest presentation. Dr. Reintgen will join Dr. John Zitelli in a debate about Sentinel Lymph Node Biopsy.

The Naples meeting will also offer 21 morning mini-sessions (twice as many as in 2006 with much larger room capacities) on topics such as Reconstruction Conundrums, Transplant-Associated Skin Cancer, Eyelid Tumor Removal and Repair, and Immunoperoxidase Stains in Mohs Surgery. Program favorites such as "Morning-at-the-Movies" and "Controversies" again feature prominently in the scientific program, and more sessions include audience-polling in the curriculum. An innovative session entitled, "The Undesirable Result in Reconstructive Surgery," is back again this year and it will surely stimulate debate among attendees.

The Scientific Program Committee hopes that you are excited as we are about attending the 2007 Annual Meeting in beautiful Southwest Florida. We look forward to seeing you there.

Regards,

Glenn D. Goldman, MD
Chair
Scientific Program Committee

PROGRAM-AT-A-GLANCE

Wednesday, May 2

3:30 pm - 6:30 pm	Registration and AV Preview	Royal Palm Foyer & Acacia VII
3:00 pm – 6:00 pm	Exhibit and Poster Set-up	Orchid Ballroom, Orchid & Royal Palm Foyers

Thursday, May 3

6:30 am – 5:00 pm	Registration and AV Preview	Royal Palm Foyer & Acacia VII
7:00 am – 6:00 pm	Slide Library and Diagnostic Quality Control Self Examination	Acacia II – III
7:15 am – 8:45 am	Concurrent Morning Mini-Sessions:	
	MB100 Unusual Reconstructions	Royal Palm III
	MB101 How I Run My Office	Royal Palm II
	MB102 Transplant-Associated Skin Cancer	Mangrove I & II
	MB103 The Paramedian Forehead Flap	Royal Palm I
	MB104 Chemoprevention	Acacia IV – VI
9:00 am – 12:00 pm	Exhibit and Poster Set-up	Orchid Ballroom, Orchid & Royal Palm Foyers
9:00 am – 9:30 am	MG110 Opening General Session	Royal Palm IV – VIII
9:30 am – 10:15 am	Scientific Session: MG111 Tromovitch Award Abstracts	Royal Palm IV – VIII
10:15 am – 10:30 am	Break	
10:30 am – 11:15 am	Scientific Session: MG112 Coding Update and Examples	Royal Palm IV – VIII
11:15 am – 12:15 pm	Scientific Session: MG113 Controversies in Mohs Surgery	Royal Palm IV – VIII
12:00 pm – 6:45 pm	Exhibit Hall open	Orchid Ballroom
12:15 pm – 1:30 pm	Lunch on own; visit the Exhibit Hall and Posters	
1:30 pm – 2:30 pm	Scientific Session, Guest Lecture: MG114 Facial Reconstruction Emphasizing Aesthetic Values	Royal Palm IV – VIII
2:30 pm – 3:30 pm	Scientific Session: MG115 Slide Quality	Royal Palm IV – VIII
3:30 pm – 4:00 pm	Refreshment Break: visit the Exhibit Hall and Posters	Orchid Ballroom
4:00 pm – 5:15 pm	Scientific Session: MG116 Abstract Session	Royal Palm IV – VIII
5:15 pm – 5:45 pm	ITSCC AT-RISC Train the Trainer	Acacia IV – VI
5:15 pm – 6:45 pm	Welcome Reception in Exhibit Hall	Orchid Ballroom

Friday, May 4

6:30 am – 5:00 pm	Registration and AV Preview	Royal Palm Foyer & Acacia VII
7:00 am – 5:30 pm	Slide Library and Diagnostic Quality Control Self Examination	Acacia II-III
7:15 am – 8:45 am	Concurrent Morning Mini-Sessions:	
	MB200 Reconstruction Conundrums	Banyan I & II
	MB201 Office Efficiency	Acacia IV-VI
	MB202 Coding for the Mohs Surgeon	Royal Palm II & III
	MB203 Periocular Mohs and Reconstruction	Royal Palm I
	MB204 Immunoperoxidase Stains in Mohs Surgery	Mangrove I & II
9:00 am – 10:15 am	Scientific Session: MG210 Abstract Session	Royal Palm IV-VIII
10:15 am – 10:45 am	Refreshment Break	Royal Palm Foyer
10:15 am – 2:30 pm	Fellow-in-training Workshop in Histotechnology	Hilton Ballroom Salon C & D
10:45 am – 12:00 pm	Scientific Session: MG211 How Would you Reconstruct It?	Royal Palm IV-VIII
12:00 pm – 5:30 pm	Exhibit Hall open	Orchid Ballroom
12:00 pm – 1:30 pm	Mohs College Annual Business Meeting and Lunch Non-members and guests lunch on own; visit the Exhibit Hall	Royal Palm IV-VIII
1:30 pm – 2:45 pm	Scientific Session, Guest Lecture: MG212 SLN Biopsy Debate	Royal Palm IV-VIII
2:45 pm – 3:15 pm	Refreshment Break; visit the Exhibit Hall	Orchid Ballroom
3:15 pm – 5:00 pm	Scientific Session: MG213 Abstract Session	Royal Palm IV-VIII
5:00 pm – 5:30 pm	Visit the Exhibit Hall	Orchid Ballroom
5:30 pm – 7:30 pm	Mohs College 40th Anniversary Gala *Come to the 40th Anniversary Gala to celebrate 40 illustrious years of the College founded by Dr. Frederic E. Mohs. Reminisce, network or just relax with your friends and colleagues.*	Vista Ballroom (Lobby Level)

Saturday, May 5

7:00 am – 2:00 pm	Registration and AV Preview	Royal Palm Foyer & Acacia VII
7:00 am – 3:00 pm	Slide Library and Diagnostic Quality Control Self-Examination	Acacia II-III
7:15 am – 8:45 am	Concurrent Morning Mini-Sessions:	
	MB300 Advanced Reconstruction	Royal Palm III
	MB301 My Favorite Cosmetic Procedures	Mangrove I & II
	MB302 Recurrences with Clear Margins	Royal Palm I
	MB303 Reconstructive Challenges	Royal Palm II
	MB304 Complications in Dermatologic Surgery	Banyan I & II
	MB305 Flap Dynamics	Acacia IV-VI
9:00 am – 10:00 am	Concurrent Scientific Sessions:	
	MC310 Tumor Board	Royal Palm IV-V
	MC311 Morning at the Movies: Advanced Cosmetic Surgery	Royal Palm VI-VIII
10:00 am – 10:30 am	Refreshment Break	Orchid Foyer
10:30 am – 2:30 pm	Fellow-in-Training Workshop in Histotechnology	Hilton Ballroom Salon C & D
10:30 am – 11:15 am	Scientific Session: MG312 The Undesirable Result in Reconstructive Surgery	Royal Palm IV-VIII
11:15 am – 12:00 pm	Scientific Session: MG313 Morning at the Movies: Mohs Surgery and Reconstruction	Royal Palm IV-VIII
12:00 pm – 3:00 pm	Exhibit Hall open; last time to visit the Exhibits and Posters	Orchid Ballroom
12:00 pm – 1:00 pm	Scientific Session: MG314 Legality and Ethics	Royal Palm IV-VIII
1:00 pm – 3:00 pm	Lunch in the Exhibit Hall; meeting adjourns for afternoon activities	Orchid Ballroom
1:00 pm – 2:00 pm	WDS/ASDS Networking Luncheon	Vista Ballroom (Lobby Level)
1:00 pm – 2:00 pm	Fellowship Training Directors' Session	Acacia IV-VI
3:00 pm – 7:00 pm	Exhibit and Poster tear-down	
7:00 pm – 8:30 pm	Fellow-in-Training Reception	Sunset Deck (Lobby Level)

Sunday, May 6

7:00 am – 10:00 am	Registration and AV Preview	Royal Palm Foyer & Acacia VII
7:15 am – 8:45 am	Concurrent Morning Mini-Sessions:	
	MB400 Reconstructive Challenges	Royal Palm III
	MB401 Pearls and Pitfalls for the New Mohs Surgeon	Royal Palm II
	MB402 Unusual Tumor CPC	Royal Palm I
	MB403 Complex Issues in the Treatment of Malignant Melanoma	Acacia IV-VI
	MB404 Office Safety	Mangrove I & II
8:00 am – 8:50 am	Diagnostic Quality Control Exam Review	Royal Palm IV-VIII
8:50 am – 9:00 am	Break	
9:00 am – 10:00 am	Scientific Session: MG410 Revision Surgery	Royal Palm IV-VIII
10:00 am – 12:00 pm	Scientific Session: MG411 Cosmetic Procedures for the Mohs Surgeon	Royal Palm IV-VIII
12:00 pm	Meeting adjourns	

GUEST SPEAKERS

Peter Hilger, MD, FACS

Dr. Peter Hilger is an Associate Professor and Director of the Division of Facial Plastic Surgery, Dept. of Otolaryngology at the University of Minnesota. He earned his M.D. and Masters of Science Degrees from the University of Minnesota. He is certified by the American Board of Facial Plastic and Reconstructive Surgery, and is a fellow of the American Academy of Facial Plastic and Reconstructive Surgery. He is the current President of the American Academy of Facial Plastic and Reconstructive Surgery, a Director of the American Board of Otolaryngology and has served as a Director, Secretary and Treasurer of the American Board of Facial Plastic and Reconstructive Surgery.

Dr. Hilger has made more than fifty scientific presentations and authored over two dozen articles on the subject of facial plastic surgery. He has been active in teaching and clinical research at the University of Minnesota for more than a decade. He is among the few fellowship-trained facial plastic surgeons in the Twin Cities. His practice encompasses the entire spectrum of facial, head, and neck surgery, from cosmetic procedures to extensive post-traumatic reconstruction. Dr. Hilger has had an exceedingly valuable relationship with several Mohs' surgeons in Minnesota for over 20 years, and has directed several soft tissue courses for facial plastic surgeons and dermatologists.

Douglas S. Reintgen, MD

Widely regarded as one of the world's best surgical oncologists, Douglas Reintgen serves as Director of Lakeland Regional Cancer Center in Lakeland, FL. Dr. Reintgen pioneered sentinel lymph node mapping, the molecular staging of cancers, advanced melanoma research, and breast conserving techniques. Committed to extending medical knowledge and expertise, he has taught over 3,000 surgeons radio-guided surgery techniques throughout his career. Dr. Reintgen was named one of the 318 Top Cancer Specialists for Women by Good Housekeeping magazine in 1999, and was named a Top Doctor for Breast Cancer by Redbook magazine in October 2001.

Upon completion of his medical degree, internship and residency at Duke University Medical Center, Dr. Reintgen came to Florida as Assistant Professor of Surgery at the University of South Florida. He became a full Professor of Surgery in 1995 and held that position until choosing to guide the development of the LRCC. He is a member of numerous medical and scientific societies and has received many awards and honors in the surgical oncology field. He has authored or contributed to more than 300 research papers and 43 chapters on oncology topics. Dr. Reintgen has conducted multiple on-site training programs in radio-guided surgery, including one at LRMC in 1998, and he has presented hundreds of lectures on cancer and cancer research.

FACULTY AND GUEST SPEAKERS

Sumaira Zareen Aasi, MD
New Haven, CT

Murad Alam, MD
Chicago, IL

John G. Albertini, MD
Greensboro, NC

Nicole Annest, MD, MS
La Jolla, CA

Natalie I. Bene, MD, PhD
Cincinnati, OH

Christopher K. Bichakjian, MD
Ann Arbor, MI

Paul H. Bowman, MD
Tampa, FL

Jerry D. Brewer, MD
Rochester, MN

Gregory M. Bricca, MD
Sacramento, CA

David G. Brodland, MD
Pittsburgh, PA

Marc D. Brown, MD
Rochester, NY

Lisa B. Campbell, MD
Danville, PA

Ross Campbell, MD
Birmingham, AL

John A. Carucci, MD PhD
New York, NY

Arianne E. Chavez-Frazier, MD
Houston, TX

Teris Minsue Chen, MD
Bellaire, TX

Steven Chow, MD, MS
North Oaks, MN

Leslie Jayne Christenson, MD
Rochester, MN

Joel Lee Cohen, MD
Englewood, CO

Brett M. Coldiron, MD
Cincinnati, OH

Joel Cook, MD
Charleston, SC

Jonathan L. Cook, MD
Durham, NC

Steven D. Cronquist, MD
Portsmouth, VA

James DeBloom, MD
Simpsonville, SC

Anthony J. Dixon, MD
Belmont, VIC, Australia

Heidi B. Donnelly, MD
Dayton, OH

Leonard M. Dzubow, MD
Media, PA

Michael J. Fazio, MD
Sacramento, CA

Edgar F. Fincher, MD
Los Angeles, CA

Frederick S. Fish, III, MD
Fridley, MN

Scott W. Fosko, MD
Saint Louis, MO

Hayes B. Gladstone, MD
Stanford, CA

Hugh M. Gloster, Jr., MD
Cincinnati, OH

Glenn D. Goldman, MD
Burlington, VT

Hubert T. Greenway, Jr., MD
La Jolla, CA

Michael L. Hadley, MD
Salt Lake City, UT

Matthew Halpern, MD
New York, NY

Ali Hendi, MD
Jacksonville, FL

Peter Hilger, MD, FACS
Minneapolis, MN

Todd E. Holmes, MD
Burlington, VT

Karen Johnson, MD
Denver, CO

Timothy M. Johnson, MD
Ann Arbor, MI

Andrew J. Kaufman, MD
Thousand Oaks, CA

Larisa C. Kelley, MD
Boston, MA

Arash Kimyai-Asadi, MD
Houston, TX

Bradley Kovach, MD
Creve Coeur, MO

Ravi S. Krishnan, MD
Indianapolis, IN

Ken K. Lee, MD
Portland, OR

Barry Leshin, MD
Winston-Salem, NC

Kevan G. Lewis, MD, MS
Providence, RI

Nanette Liegeois, MD, PhD
Baltimore, MD

Raj Mallipeddi, MD
Dallas, TX

Mary E. Maloney, MD
Worcester, MA

Kavita Mariwalla, MD
New Haven, CT

Victor J. Marks, MD
Danville, PA

J. Ramsey Mellette, Jr., MD
Aurora, CO

Michael R. Migden, MD
Houston, TX

Christopher J. Miller, MD
Philadelphia, PA

Stanley J. Miller, MD
Towson, MD

Greg S. Morganroth, MD
Mountain View, CA

Neil J. Mortimer, MBChB
Mount Maunlanui, New Zealand

Michael Murphy, MD
Pittsburgh, PA

Kishwer S. Nehal, MD
New York, NY

Isaac M. Neuhaus, MD
San Francisco, CA

Tri H. Nguyen, MD
Houston, TX

Suzanne Olbricht, MD
Burlington, MA

Ida F. Orengo, MD
Houston, TX

Clark C. Otley, MD
Rochester, MN

Jeffrey E. Petersen, MD
Saint Louis, MO

Desiree Ratner, MD
New York, NY

Douglas S. Reintgen, MD
Lakeland, FL

Brandon Rhinehart, DO
Reading, MA

Elizabeth K. Robson, HT
Burlington, VT

Randall K. Roenigk, MD
Rochester, MN

Thomas E. Rohrer, MD
Chestnut Hill, MA

Steven M. Rotter, MD
Vienna, VA

Peter A.D. Rubin, MD
Jamaica Plain, MA

Rachel E. Sahn
Charleston, SC

Aradhna Saxena, MD
Mountain View, CA

Carl F. Schanbacher, MD
Boston, MA

Roberta D. Sengelmann, MD
St. Louis, MO

Ikue Shimizu
Providence, RI

Seaver Soon, MD
La Jolla, CA

James M. Spencer, MD
St. Petersburg, FL

Thomas Stasko, MD
Nashville, TN

John M. Strasswimmer, MD, PhD
Coral Gables, FL

R. Stan Taylor, III, MD
Dallas, TX

Valencia Thomas, MD
New Haven, CT

Payam Tristani-Firouzi, MD
Salt Lake City, UT

Timothy S. Wang, MD
Ann Arbor, MI

Rungsima Wanitphakdeedecha, MD
Bangkok, Thailand

Carl V. Washington, Jr., MD
Atlanta, GA

Robert J. Willard, MD
Barrington, RI

Summer Youker, MD
Saint Louis, MO

Mark J. Zalla, MD
Florence, KY

John A. Zitelli, MD
Pittsburgh, PA

CME INFORMATION

How to Receive CME Credit

Registrants will receive a two-part CME claim form from the University of Vermont on site. The second page (yellow) of the form should be submitted to the ACMS on site or via mail/fax within two weeks of the meeting for proper documentation of attendance. The first page (white) of the form should be kept by all meeting attendees as verification they claimed CME for the meeting. Attendees will receive certificates of attendance post-meeting after the claim forms are matched with registration data.

CME Credit

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of The University of Vermont and the American College of Mohs Surgery (ACMS). The University of Vermont is accredited by the ACCME to provide continuing medical education for physicians.

The University of Vermont designates this educational activity for a maximum of 24 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

The ACMS Annual Meeting is also recognized by the American Academy of Dermatology for 24 hours of AAD Category 1 CME credit that may be used toward the American Academy of Dermatology's Continuing Medical Education Award. The program number is 197-100.

Attention: Members of the American Academy of Dermatology who wish to have their credit recorded by the AAD

The AAD requires members who wish to have the AAD record their CME credit to self report. The Mohs College cannot report attendance to the AAD. In order to report attendance to the AAD, members can use the online transcript program available at www.aad.org. Green cards may also be submitted to the AAD. Attendees may turn in green cards at the ACMS meeting (for subsequent forwarding to the AAD) or may submit them directly to the AAD. Please make a copy of your completed green card before sending it to the AAD.

Disclosure of Faculty Financial Affiliations

The University of Vermont, as an ACCME accredited provider, endorses and strives to comply with the Accreditation Council for Continuing Medical Education (ACCME) Standards of Commercial Support on the need for disclosure and monitoring of proprietary and financial interests that may affect the scientific integrity and balance of content delivered in continuing medical education activities under our auspices. The University of Vermont College of Medicine requires that all CME activities accredited through this institution be developed independently and be scientifically rigorous, balanced and objective in the presentation/discussion of its content, theories and practices. Disclosure of faculty and commercial relationships will be made known at the annual meeting.

AMERICAN COLLEGE OF MOHS SURGERY

Disclosure of Discussion of Non-FDA Approved Uses for Pharmaceutical Products and/or Medical Devices

The University of Vermont College of Medicine, as an ACCME provider, requires that all faculty presenters identify and disclose any off-label uses for pharmaceutical and medical device products. The University of Vermont College of Medicine recommends that each physician fully review all the available data on new products or procedures prior to instituting them with patients.

Disclaimer

The views expressed and the techniques presented by the speakers of the ACMS- sponsored educational meetings are not necessarily shared or endorsed by the organization. Speakers are required to disclose all relevant conflicts of interest and any unapproved or off-label uses of medical devices or pharmaceutical agents that they discuss, describe or demonstrate during their presentations.

Meeting attendees should use their independent judgment in applying the information discussed in these educational sessions in the treatment of patients. Handout materials are prepared and submitted for distribution by the presenters, who are solely responsible for their content.

AMERICAN COLLEGE OF MOHS SURGERY

Learning Objectives

Upon completion of the Annual Meeting, participants will be able to describe the latest advances in the treatment of skin cancer, discuss recent research findings in the area of Mohs Micrographic Surgery and cutaneous oncology, and explain new techniques in reconstruction that promote optimal surgical outcomes.

The specific objectives include, but are not limited to, the following:

Upon completion of the ACMS Annual Meeting, participants will be able to

- Describe various research projects being pursued within the areas of Mohs surgery, cutaneous oncology, and reconstruction.
- Identify controversial practices in the field of Mohs surgery and cutaneous oncology and explain both arguments for and against particular techniques.
- Describe the correct way to bill for Mohs surgery, reconstruction and other dermatologic surgery procedures in real clinical situations.
- Discuss novel techniques for repair of surgical defects of the lips, forehead, cheeks and ears.
- Explain the arguments for and against the use of the sentinel lymph node biopsy in the management of cutaneous melanoma.
- Discuss various ways to reconstruct specific surgical defects for optimal cosmetic and functional results.
- Discuss the optimal management of complex cutaneous neoplasms, including the use of Mohs surgery for these unusual tumors.
- Identify the value of adding cosmetic procedures to a Mohs surgery practice. Discuss various cosmetic techniques including the use of fillers, ablative skin resurfacing, blepharoplasty, etc.

FACULTY DISCLOSURE INFORMATION FOR CME

Interest Disclosures

As an organization accredited by the ACCME to sponsor continuing medical education activities, The University of Vermont is required to disclose any real or apparent conflicts of interest (COI) that any speakers may have related to the content of their presentations.

The University of Vermont requires that each speaker participating in a program designated for AMA Physician's Recognition Award Category 1 credit disclose any financial interest/arrangement or affiliation with a corporate organization that may impact on his/her presentation (i.e. grants, research support, honoraria, member of speakers' bureau, consultant, major stock shareholder, etc.). In addition, the faculty member must disclose when an unlabeled use of a commercial product or an investigational use not yet approved for any purpose is discussed during the educational activity.

No Interests to Disclose:

Sumaira Zareen Aasi, MD
John G. Albertini, MD
Nicole Annest, MD, MS
Natalie I. Bene, MD, PhD
Christopher K. Bichakjian, MD
Paul H. Bowman, MD
Jerry D. Brewer, MD
Gregory M. Bricca, MD
David G. Brodland, MD
Marc D. Brown, MD
Lisa B. Campbell, MD
Ross Campbell, MD
John A. Carucci, MD PhD
Arianne E. Chavez-Frazier, MD
Teris Minsue Chen, MD
Steven Chow, MD, MS
Leslie Jayne Christenson, MD
Brett M. Coldiron, MD
Joel W. Cook, MD
Jonathan L. Cook, MD
Steven D. Cronquist, MD
James DeBloom, MD
Anthony J. Dixon, MD
Heidi B. Donnelly, MD
Leonard M. Dzubow, MD
Michael J. Fazio, MD
Frederick S. Fish, III, MD
Scott W. Fosko, MD
Hugh M. Gloster, Jr., MD
Glenn D. Goldman, MD
Hubert T. Greenway, Jr., MD
Michael L. Hadley, MD
Matthew Halpern, MD
Ali Hendi, MD
Todd E. Holmes, MD
Karen Johnson, MD
Timothy M. Johnson, MD
Andrew J. Kaufman, MD
Larisa C. Kelley, MD
Arash Kimyai-Asadi, MD
Bradley Kovach, MD
Ravi S. Krishnan, MD
Ken K. Lee, MD
Barry Leshin, MD
Kevan G. Lewis, MD, MS
Raj Mallipeddi, MD
Mary E. Maloney, MD
Kavita Mariwalla, MD
J. Ramsey Mellette, Jr., MD
Michael R. Migden, MD
Christopher J. Miller, MD
Stanley J. Miller, MD
Greg S. Morganroth, MD
Neil J. Mortimer, MBChB
Michael Murphy, MD
Kishwer S. Nehal, MD
Isaac M. Neuhaus, MD
Tri H. Nguyen, MD
Suzanne Olbricht, MD
Ida F. Orengo, MD
Desiree Ratner, MD
Douglas S. Reintgen, MD
Brandon Rhinehart, DO
Elizabeth K. Robson, HT
Randall K. Roenigk, MD
Steven M. Rotter, MD
Peter A.D. Rubin, MD
Rachel E. Sahn
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Ikue Shimizu
John M. Strasswimmer, MD, PhD
R. Stan Taylor, III, MD
Valencia Thomas, MD
Payam Tristani-Firouzi, MD
Timothy S. Wang, MD
Rungsima Wanitphakdeedecha, MD
Carl V. Washington, Jr., MD
Robert J. Willard, MD
Summer Youker, MD
Mark J. Zalla, MD
John A. Zitelli, MD

FACULTY DISCLOSURE (continued…)

Interests to Disclose/COI/Bias Resolved*:

Joel Lee Cohen, MD	Consultant for Fee – Allergan, BioForm, Medicis, OrthoNeutrogena, Palomar; Research Grants – Cynosure, Sciton, Medicis, BioForm, Allergan, Neocutis; Speakers' Bureaus – Palomar, Allergan, BioForm, Medicis
Edgar F. Fincher, MD	Speakers' Bureaus - Rhytec, Inc.; Stock/Bond Holdings (excluding mutual funds) - Medicis
Hayes B. Gladstone, MD	Honoraria for one speaking engagement - BioForm, Inc. Research Collaboration - Lumenis, Inc.
Peter Hilger, MD, FACS	Consultant for Fee - BioForm
Nanette Liegeois, MD, PhD	President, founder and owner - Meridian Skin Care, Limited
Victor J. Marks, MD	Speakers' Bureaus - Connetics
Clark C. Otley, MD	Consultant for Fee - Connetics
Thomas E. Rohrer, MD	Speakers' Bureaus – Allergan, Candela, Lumenis, Medicis, Radiancy
Roberta D. Sengelmann, MD	Advisory Board – Allergan, Medicis, Dermik, BioForm; Speakers' Bureaus – Allergan, BioForm, Dermik, Medicis
James M. Spencer, MD	Advisory Board – Neutrogena; Speakers' Bureaus - 3M Pharmaceuticals
Thomas Stasko, MD	Consultant for Fee – Synermed; Speakers' Bureaus - Connetics

Speaker has indicated that he/she will be discussing the unlabeled use of a commercial product:

Joel Lee Cohen, MD will discuss uses of enhanced collagen, hyaluronidase enzyme, and nitroglycerin ointment.

Steven D. Cronquist, MD will discuss imiquimod for treatment of Lentigo Maligna.

Matthew Halpern, MD will discuss use of imatinib mesylate for treatment of DFSP.

Roberta D. Sengelmann, MD will discuss uses of botulinum toxin, calcium hydroxylapatite, hyaluronic acid, poly-L-lactic acid, and collagen.

Thomas Stasko, MD will discuss acetretin for chemoprevention of skin cancer.

John M. Strasswimmer, MD, PhD will discuss radiation therapy for Merkel Cell Carcinoma.

Failed to disclose (Disclosure will be made on site – all possible conflicts of interest, if applicable, will be resolved prior to talk):

Murad Alam, MD
Jeffrey E. Petersen, MD
Carl F. Schanbacher, MD
Seaver Soon, MD

*Having a financial interest or other relationship with a corporate organization, *or discussing an unlabeled use of a commercial product*, may not prevent a speaker from making a presentation. However, the existence of the relationship must be made known to the planning committee prior to the conference, so that any possible conflict of interest may be resolved prior to the talk.

SCIENTIFIC PROGRAM

Wednesday, May 02, 2007

3:00 PM to 6:00 PM — Orchid Ballroom, Orchid & Royal Palm Foyers
Exhibit and Poster Set-up

3:30 PM to 6:30 PM — Royal Palm Foyer & Acacia VII
Registration and AV Preview

Thursday, May 03, 2007

6:30 AM to 5:00 PM — Royal Palm Foyer & Acacia VII
Registration and AV Preview

7:00 AM to 6:00 PM — Acacia II-III
Slide Library and Diagnostic Quality Control Exam

7:15 AM to 8:45 AM
MB100 — Royal Palm III
Unusual Reconstructions
At the conclusion of this session, participants should be able to: 1) Evaluate challenging facial wounds for creative reconstruction, 2) Utilize common repair modalities in atypical locations, and 3) Implement non textbook repairs in facial reconstruction.
Joel Cook, MD; Glenn D. Goldman, MD

MB101 — Royal Palm II
How I Run My Office
At the conclusion of this session, participants should be able to: 1) Describe unique features of a new Mohs surgery practice versus an established Mohs surgery practice, 2) Develop and refine current skills in leadership and marketing, 3) Improve practice efficiency, 4) Understand tools for hiring and retaining excellent employees, and 5) Ask questions regarding starting a Mohs surgery practice or running a successful, well established Mohs surgery practice.
Michael J. Fazio, MD; Karen Johnson, MD

Thursday, May 03, 2007 (continued...)

MB102 — Mangrove I & II
Transplant-Associated Skin Cancer
At the conclusion of this session, participants should be able to: 1) Recognize characteristics of high-risk skin cancer in transplant recipients, 2) Determine optimal treatment modalities for the various stages of accelerated cutaneous carcinogenesis, and 3) Discuss with transplant physicians the pros and cons of reduction of immunosuppression and systemic retinoid therapy.
Clark C. Otley, MD; Thomas Stasko, MD

MB103 — Royal Palm I
The Paramedian Forehead Flap
At the conclusion of this session, participants should be able to: 1) Identify the proper indications for use of the paramedian forehead flap, 2) Understand flap design and execution, and 3) Manage appropriate surgical complications.
Jonathan L. Cook, MD

MB104 — Acacia IV-VI
Chemoprevention
At the conclusion of this session, participants should be able to: 1) Understand current skin cancer prevention strategies, 2) Appreciate potential future chemoprevention agents, and 3) Identify high-risk patients who are candidates for chemoprevention.
James M. Spencer, MD

9:00 AM to 9:30 AM
MG110 — Royal Palm IV-VIII
Opening General Session
At the conclusion of this session, participants should be able to: 1) Recite trends in research in Mohs surgery and cutaneous oncology, and 2) Identify political and socioeconomic changes affecting Mohs surgery.

9:00 AM - 9:10 AM
Opening Remarks
David G. Brodland, MD

9:10 AM - 9:30 AM
Changes in Mohs Surgery
Mark J. Zalla, MD
Brett M. Coldiron, MD

SCIENTIFIC PROGRAM

Thursday, May 03, 2007 (continued...)

9:00 AM to 12:00 PM — Orchid Ballroom, Orchid & Royal Palm Foyers
Exhibit and Poster Set-up

9:30 AM to 10:15 AM
MG111 — Royal Palm IV-VIII
Tromovitch Award Abstracts
At the conclusion of this session, participants should be able to: 1) Be updated on recent advances in cutaneous oncology, 2) Be aware of research activities in the area of cutaneous oncology, and 3) Be aware of young investigators' research and scholarly activities.
Moderators: Scott W. Fosko, MD; Timothy M. Johnson, MD

9:30 AM – 9:38 AM
The Utility of FDG-PET/CT Imaging in the Follow-Up Management of Patients with Primary Cutaneous Malignant Melanoma
Nicole M. Annest, MD, MS; Sarah J. Grekin; Marta J. VanBeek, MD, MPH; Hubert T. Greenway, MD

9:38 AM - 9:46 AM
Response of Lentigo Maligna to Treatment with Topical Imiquimod; A Series of Ten Cases
Steven Cronquist, MD; Donald J. Grande, MD

9:46 AM - 9:54 AM
Confusing Follicular Proliferations Seen on Mohs Slides: Dermatopathologic Correlation and Review of Basaloid Mimickers
Ross M. Campbell, MD; Christopher Harmon, MD; James E. Elder, MD; Gary Monheit, MD

9:54 AM - 10:02 AM
The Characteristics and Invasive Growth Potential of Locally Recurrent Malignant Melanoma and Melanoma In Situ
James R. DeBloom, II, MD; David G. Brodland, MD; John A. Zitelli, MD

10:02 AM - 10:10 AM
The Frequency of Errors in Reading Mohs Pathology Sections over a One-Year Fellowship
Michael Murphy, MD; David Brodland, MD; John Zitelli, MD

10:10 AM - 10:15 AM
Questions

10:15 AM to 10:30 AM
Break

10:30 AM to 11:15 AM
MG112 — Royal Palm IV-VIII
Coding Update and Examples - An interactive Audience Polling Session
At the conclusion of this session, participants should be able to: 1) Understand and properly utilize the new codes for Mohs surgery, 2) Properly code for surgical reconstruction, and 3) Utilize the correct coding initiative and the -51 modifier in relation to multiple procedures.
Moderator: Glenn D. Goldman, MD
Panelists: Brett M. Coldiron, MD; Jonathan L. Cook, MD; Mark J. Zalla, MD; John A. Zitelli, MD

11:15 AM to 12:15 PM
MG113 — Royal Palm IV-VIII
Controversies in Mohs Surgery - An Interactive Audience Polling Session
At the conclusion of this session, participants should be able to: 1) Understand the role of imatinib in managing selected patients with dermatofibrosarcoma protuberans, 2) Discuss the possible indications, as well as the potential risks and benefits, of postoperative adjuvant therapy for patients with Merkel cell carcinoma, and 3) Identify potential indications for sentinel lymph node biopsy in patients with thin melanoma.
Moderator: Desiree Ratner, MD

11:15 AM – 11:32 AM
Should This Patient With DFSP Be Treated With Imatinib Mesylate Prior to Undergoing Mohs Micrographic Surgery?
Presenter: Matthew Halpern, MD
Yes: Christopher K. Bichakjian, MD
No: Stanley J. Miller, MD

Note: Underlined name in abstract session is presenting author.

SCIENTIFIC PROGRAM

Thursday, May 03, 2007 (continued...)

11:32 AM - 11:49 AM
Should This Patient With Merkel Cell Carcinoma Be Treated With Adjuvent Radiation Therapy Postoperatively?
Presenter: Brandon Rhinehart, DO
Yes: Suzanne Olbricht, MD
No: John M. Strasswimmer, MD, PhD

11:49 AM - 12:06 PM
Should This Patient With Thin Melanoma (0.75-1mm) Undergo A Sentinel Lymph Node Biopsy?
Presenter: Seaver Soon, MD
Yes: Kishwer S. Nehal, MD
No: Timothy S. Wang, MD

12:06 PM - 12:15 PM
Questions

12:00 PM to 6:45 PM Orchid Ballroom
Exhibit Hall open

12:15 PM to 1:30 PM
Lunch on own; visit the Exhibit Hall and Posters

1:30 PM to 2:30 PM
MG114 – Guest Lecture Royal Palm IV-VIII
Facial Reconstruction Emphasizing Aesthetic Values
At the conclusion of this session, participants should be able to: 1) Design reconstructive options that emphasize preservation of essential physiological functions, 2) Anticipate which soft tissue defects will require composite tissue reconstruction rather than just cutaneous coverage, and 3) Design reconstructive procedures that integrate aesthetic principles with oncologic concerns.

1:30 PM - 1:40 PM
Introduction
Frederick S. Fish, III, MD

1:40 PM - 2:30 PM
Guest Speaker
Peter Hilger, MD, FACS

2:30 PM to 3:30 PM
MG115 Royal Palm IV-VIII
Slide Quality
At the conclusion of this session, participants should be able to: 1) Improve the quality of Mohs frozen section histopathology slides, 2) Pinpoint and correct errors that lead to suboptimal frozen histopathology sections, and 3) Learn pearls from an experienced histotechnician on managing challenging tissues.
Moderator: Sumaira Zareen Aasi, MD
Panelists: Glenn D. Goldman, MD; Elizabeth K. Robson, HT; Carl F. Schanbacher, MD; Valencia Thomas, MD

3:30 PM to 4:00 PM Orchid Ballroom
Break; visit the Exhibit Hall and Posters

4:00 PM to 5:15 PM
MG116 Royal Palm IV-VIII
Abstract Session
At the conclusion of this session, participants should be able to: 1) Raise awareness about treatment conundrums & controversies commonly encountered in skin cancer management, 2) Shed light on our understanding and treatment of patients with high risk malignancies and 3) Present the most interesting late breaking research from our field of cutaneous oncologic surgery.
Moderator: Roberta Sengelmann, MD

4:00 PM – 4:08 PM
Mohs Micrographic Surgery for Treatment of Cutaneous Melanoma In Situ: Are Frozen Sections Adequate?
Natalie I. Bene, MD, PhD; Brett M. Coldiron, MD

4:08 PM - 4:16 PM
Is it Benign Melanocytic Hyperplasia or Melanoma?
Ali Hendi, MD

4:16 PM - 4:24 PM
Muscular Hinge Flaps: Technique and Applications in Dermatological Surgery
Neil J. Mortimer, MBChB; Paul J. Salmon, MD; Sarah Hill, MBChB

Note: Underlined name in abstract session is presenting author.

SCIENTIFIC PROGRAM

Thursday, May 03, 2007 (continued...)

4:24 PM - 4:32 PM
Sentinel Lymph Node Biopsy for High-Risk Non-melanoma Skin Cancers
Rachel E. Sahn; Pearon G. Lang, MD

4:32 PM - 4:40 PM
Margin Involvement after the Excision of Malignant Melanoma: The Need for Complete En-Face Examination of the Margins
Arash Kimyai-Asadi, MD; Tracy Katz; Leonard H. Goldberg, MD; Gabriel Ayala; Steven Q. Wang, MD; Ming H. Jih, MD, PhD

4:40 PM - 4:48 PM
Bleeding Complications in Skin Cancer Surgery are Associated with Warfarin but Not Aspirin Therapy - A Prospective Study
Anthony J. Dixon, MD

4:48 PM - 4:56 PM
The Effects of Chronic Lymphocytic Leukemia on the Development and Progression of Malignant Melanoma
Jerry D. Brewer, MD; Leslie J. Christenson, MD; Roger H. Weenig, MD; Amy L. Weaver, MS

4:56 PM - 5:04 PM
Peri-Operative Continuation of Multiple Oral Anti-Coagulant and Anti-Platelet Agents Increases the Risk of Post-Operative Hemorrhage in Dermatologic Surgery
Ikue Shimizu; Raymond G. Dufresne, MD; Nathaniel Jellinek, MD; Tianyu Li, MS; Karthik Devarajan, PhD; Clifford Perlis, MD

5:04 PM - 5:15 PM
Questions

5:15 PM to 5:45 PM — Acacia IV-VI
ITSCC AT-RISC Train the Trainer

5:15 PM to 6:45 PM — Orchid Ballroom
Welcome Reception in Exhibit Hall

Friday, May 04, 2007

6:30 AM to 5:00 PM — Royal Palm Foyer & Acacia VII
Registration and AV Preview

7:00 AM to 5:30 PM — Acacia II-III
Slide Library and Diagnostic Quality Control Exam

7:15 AM to 8:45 AM
MB200 — Banyan I & II
Reconstruction Conundrums
At the conclusion of this session, participants should be able to: 1) Understand the basic reconstruction principles utilized for both simple and complex defects, 2) Develop a consistent approach to cutaneous reconstruction, and 3) Utilize the reconstruction principles and presented approaches to assist with breaking down defects into manageable components that provide frequently predictable and favorable outcomes.
Scott W. Fosko, MD; Paul H. Bowman, MD; Summer Youker, MD

MB201 — Acacia IV-VI
Optimizing a Mohs Surgical Practice
At the conclusion of this session, participants should be able to: 1) Identify the essential components necessary to optimize the delivery of high-quality care, while maximizing revenue, and finding satisfaction in one's work, 2) Understand the interplay of efficiency, service and quality, and 3) Understand the rationale and strategies for satisfying both internal and external customers.
John G. Albertini, MD; Barry Leshin, MD

MB202 — Royal Palm II & III
Coding for the Mohs Surgeon
At the conclusion of this session, participants should be able to: Understand changes in Mohs codes for 2007 and how to use them appropriately. Participants should also understand the principles of coding for reconstruction in association with Mohs micrographic surgery.
P. Kim Phillips, MD; Mark J. Zalla, MD

Note: Underlined name in abstract session is presenting author.

SCIENTIFIC PROGRAM

Friday, May 04, 2007 (continued...)

MB203 Royal Palm I

Periocular Mohs and Reconstruction

At the conclusion of this session, participants should be able to: 1) Have a better understanding of eyelid anatomy, 2) Recognize unusual tumors of the eyelids, 3) Review principles for safe tumor removal, and 4) Understand basic and advanced techniques of eyelid reconstruction.

Larisa C. Kelley, MD; Peter A.D. Rubin, MD

MB204 Mangrove I & II

Immunoperoxidase Stains in Mohs Surgery

At the conclusion of this session, participants should be able to: 1) Understand the science behind immunostains, 2) Incorporate immunostains into a Mohs surgery practice, and 3) Understand how successful immunostaining benefits patients, surgeons, and insurance companies.

Gregory M. Bricca, MD; Ali Hendi, MD

9:00 AM to 10:15 AM

MG210 Royal Palm IV-VIII

Abstract Session

At the conclusion of this session, participants should be able to: 1) Incorporate novel adjunctive techniques for reconstruction of surgical defects, 2) Understand the role of sentinel lymph node evaluation in cutaneous malignancies, and 3) Learn the importance of concordance and use of immunostains in histology.

Moderator: Sumaira Zareen Aasi, MD

9:00 AM – 9:08 AM
Island Pedicle Flaps Twisted and Transposed
Glenn D. Goldman, MD; Todd E. Holmes, MD

9:08 AM - 9:16 AM
Elective Lymph Node Evaluation in Patients with High Risk Squamous Cell Carcinomas: A Review of the Current Literature
Matthew Halpern, MD; Desiree Ratner, MD

9:16 AM - 9:24 AM
Mohs Surgery Histopathology Concordance
Kavita Mariwalla, MD; David J. Leffell, MD

9:24 AM - 9:32 AM
Sentinel Lymph Node Biopsy: Another View
John A. Zitelli, MD

9:32 AM - 9:40 AM
Alar Rotation Flap for Repair of Nasal Alar Defects
Arash Kimyai-Asadi, MD

9:40 AM - 9:48 AM
Use of Immunostains in the Measurement of Breslow Depths of Malignant Melanoma
Brad Kovach, MD; Frank Q. Zhan, MD; Alan S. Boyd, MD; Thomas Stasko, MD

9:48 AM - 9:56 AM
The Galeal Hinge Flap: A Useful Tool for the Immediate Repair of Scalp Defects Extending to Bone
Matthew Halpern, MD

9:56 AM - 10:04 AM
Transposition Island Pedicle Flaps for Nasal Sidewall, Root and Combination Defects
Lisa B. Campbell, MD; Michael L. Ramsey, MD

10:04 AM - 10:12 AM
Technical Innovation in Tissue Mounting During Mohs Surgery
Kevan G. Lewis, MD; Raymond G. Dufresne, MD; Nathaniel J. Jellinek, MD

10:12 AM - 10:15 AM
Questions

10:15 AM to 10:45 AM Royal Palm Foyer
Break

10:15 AM to 2:30 PM Hilton Ballroom Salon C & D
Fellow-in-training Workshop in Histotechnology

Note: Underlined name in abstract session is presenting author.

SCIENTIFIC PROGRAM

Friday, May 04, 2007 (continued...)

10:45 AM to 12:00 PM Royal Palm IV-VIII

MG211

How Would You Reconstruct It? - An Interactive Audience Polling Session

At the conclusion of this session, participants should be able to: 1) Consider several reconstructive options for any surgical defect, and 2) Understand the pros and cons of alternative reconstructive techniques

Moderator: Joel Cook, MD

Panelists: Jonathan L. Cook, MD; Heidi B. Donnelly, MD; Glenn D. Goldman, MD; Andrew J. Kaufman, MD

12:00 PM to 5:30 PM Orchid Ballroom

Exhibit Hall open

12:00 PM to 1:00 PM Royal Palm IV-VIII

Mohs College Annual Business Meeting & Lunch; non-members and guests lunch on own; visit the Exhibit Hall

1:30 PM to 2:45 PM Royal Palm IV-VIII

MG212 – Guest Lecture

SLN Biopsy Debate

At the conclusion of this session, participants should be able to: 1) Understand the utility of SLNBx in staging melanoma patients and accurately predicting outcome, 2) Understand the controversy over SLNBx and subset survival benefit, and 3) Understand whether SLNBx leads to improved regional disease control.

Moderator: Victor J. Marks, MD

Panelists: Douglas S. Reintgen, MD; John A. Zitelli, MD

2:45 PM to 3:15 PM Orchid Ballroom

Break; visit the Exhibit Hall

3:15 PM to 5:00 PM Royal Palm IV-VIII

MG213

Abstract Session

At the conclusion of this session, participants should be able to: 1) Learn novel adjunctive techniques for reconstructive surgery, 2) Appreciate the "art" of medicine, especially in terms of quality of life and effective informed consents, and 3) Consider management approaches to benign and malignant skin tumors.

Moderators: Mary E. Maloney, MD; Tri H. Nguyen, MD

3:15 PM – 3:23 PM

Health-Related Quality of Life and Utilities in Patients with Chronic Nonmelanoma Skin Cancer: A Multispeciality Assessment

Murad Alam, MD; Ray Hah; Elizabeth Calhoun, PhD; John Y. Kim, MD MA; Simon Yoo, MD; Lucile White, MD

3:23 PM - 3:31 PM

Bilateral Upper Blepharoplasty for Full Thickness Skin Grafts: Synergy in the Repair of Eyelid Defects Following Mohs Surgery

Aradhna Saxena, MD; Greg S. Morganroth, MD

3:31 PM - 3:39 PM

Efficacy of Excision of Well-Demarcated Primary Nodular Facial Basal Cell Carcinomas with 2-mm Surgical Margins

Arash Kimyai-Asadi, MD; Leonard H. Goldberg, MD; Steven Q. Wang, MD; Daniel S. Behroozan, MD; S. Ray Peterson, MD; Murad Alam, MD; Ming H. Jih, MD, PhD

3:39 PM - 3:47 PM

The Use of High Definition Video Clips for Informed Consent and Wound Care in the Mohs Surgery Unit

Arianne E. Chavez-Frazier, MD; Tri Nguyen, MD; Michael Migden, MD

3:47 PM - 3:55 PM

Superficial Musculoaponeurotic System (SMAS) Plication in Facial Reconstructive Surgery

Rungsima Wanitphakdeedecha, MD; Teris Minsue Chen, MD; Michael R. Migden, MD; Tri H. Nguyen, MD

3:55 PM - 4:03 PM

Nasalis Myocutaneous Island Pedicle Flap with Partial Alar Second Intention Healing for Repair of Lateral Nasal Sidewall and Partial Alar Defects

Robert J. Willard, MD; Raymond G. Dufresne, MD; Nathaniel Jellinek, MD

4:03 PM - 4:11 PM

Cellular Dermatofibroma: Benign or Malignant?

Arash Kimyai-Asadi, MD; Ming H. Jih, MD, PhD; Leonard H. Goldberg, MD

Note: Underlined name in abstract session is presenting author.

SCIENTIFIC PROGRAM

Friday, May 04, 2007 (continued...)

4:11 PM - 4:19 PM
A Technique for Fat Conservation when Releasing Interpolation Flap Pedicles
Ravi S. Krishnan, MD; Heidi B. Donnelly, MD

4:19 PM - 4:27 PM
Modified Bernard-Burow's Reconstruction for Near Complete Lower Lip Resection Following Mohs Surgery
Jeffrey E. Petersen, MD

4:27 PM - 4:35 PM
Investigation of the Effectiveness of Anaesthesia of the Nasal Ala Provided by an Infraorbital Nerve Block
Neil J. Mortimer, MBChB; Paul J. Salmon, MD; Michael J. Sladden, MBChB

4:35 PM - 4:43 PM
Subcutaneous Pedicle Nasolabial Transposition Flap
Steven Chow, MD; Peter K. Lee, MD, PhD

4:43 PM - 4:51 PM
A Novel Two-Hour Method for Rapid Preparation of Permanent Paraffin Sections of Melanoma In-Situ During Mohs Micrographic Surgery
Raj Mallipeddi, MD, MRCP; Jeffrey Stark; Xian-Jin Xie, PhD; Mark Matthews, MD; R. Stan Taylor, MD

4:51 PM - 5:00 PM
Questions

5:00 PM to 5:30 PM — Orchid Ballroom
Visit the Exhibit Hall

5:30 PM to 7:30 PM — Vista Ballroom (Lobby Level)
Mohs College 40th Anniversary Gala
Come to the 40th Anniversary Gala to celebrate 40 illustrious years of the College founded by Dr. Frederic E. Mohs. Reminisce, network or just relax with your friends and colleagues.

Saturday, May 05, 2007

7:00 AM to 3:00 PM — Royal Palm Foyer & Acacia VII
Registration and AV Preview
Slide Library and Diagnostic Quality Control Exam — Acacia II-III

7:15 AM to 8:45 AM
MB300 — Royal Palm III
Advanced Reconstruction
At the conclusion of this session, participants should be able to: 1) Understand principles of cosmetic subunit reconstruction - when to and when not to, 2) Understand principles of tissue movement and flap dynamics and their application to various facial anatomic sites, and 3) Indentify critical periocular anatomy, understand principles of oculoplastic repair and apply knowledge to specific defects.
John G. Albertini, MD

MB301 — Mangrove I & II
My Favorite Cosmetic Procedures
At the conclusion of the session, participants should be able to: 1) Evaluate a patient for cosmetic procedures, 2) Understand the principles behind various lasers and why one may be a better choice from another in a given situation, and 3) Understand the wide variety of fillers and botulinum toxins available and their differences.
Thomas E. Rohrer, MD; Steven M. Rotter, MD; Roberta D. Sengelmann, MD

MB302 — Royal Palm I
Tumor Recurrence Following Mohs Surgery: How Does It Happen?
At the conclusion of this session, participants should be able to: 1) Identify inherent biological traits of a spectrum of aggressive skin cancers, and the role such characteristics play in tumor recurrence following Mohs, 2) Understand potential for technique errors in performing Mohs surgery that most readily account for tumor recurrence, and 3) Recognize features and settings of pseudo-recurrence of tumor following Mohs surgery.
Barry Leshin, MD

Note: Underlined name in abstract session is presenting author.

SCIENTIFIC PROGRAM

Saturday, May 05, 2007 (continued...)

MB303 Royal Palm II

Reconstructive Challenges

At this session, a variety of challenging surgical defects of the head and neck and various reconstructive options will be presented. At the conclusion, the participants should: 1) Have an increased appreciation of techniques for tissue movement for difficult defects, 2) Have an awareness of innovations in reconstructive surgery, and 3) Have an increased ability to predict which techniques will provide optimal aesthetic results.

J. Ramsey Mellette, Jr., MD

MB304 Banyan I & II

Complications in Dermatologic Surgery

At the conclusion of this session, participants should be able to: 1) Preventing complications in Dermatologic Surgery, and 2) Dealing with complications in Dermatologic Surgery.

Hugh M. Gloster, Jr., MD; Ida F. Orengo, MD

MB305 Acacia IV-VI

Flap Dynamics

At the conclusion of this session, participants should be able to: 1) Understand the tissue dynamics of fundamental flaps (advancement, rotation, transposition), 2) Appreciate the design and intraoperative interventions that will optimize flap repair, and 3) Incorporate fundamental principles in the closure of simple to complex Mohs defects.

Tri H. Nguyen, MD

9:00 AM to 10:00 AM

MC310

Tumor Board Royal Palm IV-V

At the conclusion of the session, participants should be able to: 1) Evaluate and manage patients with complex skin cancers, 2) Design an effective approach for patients with multiple skin cancers, 3) Consider innovative adjuvant strategies for patients with extensive cancers.

Moderators: John A. Carucci, MD PhD; Timothy M. Johnson, MD

Panelists: Sumaira Zareen Aasi, MD; Clark C. Otley, MD; Desiree Ratner, MD; Carl V. Washington, Jr., MD

MC311 Royal Palm VI-VIII

Morning at the Movies: Advanced Cosmetic Surgery

At the conclusion of this session, participants should be able to: 1) Understand the indications and technique for upper blepharoplasty, 2) Incorporate the carbon dioxide laser as a lower blepharoplasty technique, and 3) Explain the surgical pearls to maximize longevity and minimize risks in face lift surgery.

Moderators: Hayes B. Gladstone, MD; Greg S. Morganroth, MD

9:00 AM – 9:15 AM

Upper Blepharoplasty

Hayes B. Gladstone, MD

9:15 AM - 9:20 AM

Questions

9:20 AM - 9:35 AM

Carbon Dioxide Laser Transconjunctival Blepharoplasty

Aradhna Saxena, MD

9:35 AM - 9:40 AM

Questions

9:40 AM - 9:55 AM

Local Anesthsia Vertical Vector Face Lift

Greg S. Morganroth, MD

9:55 AM - 10:00 AM

Questions

10:00 AM to 10:30 AM Orchid Foyer

Break

10:30 AM to 2:30 PM Hilton Ballroom Salon C & D

Fellow-in-training Workshop in Histotechnology

SCIENTIFIC PROGRAM

Saturday, May 05, 2007 (continued...)

10:30 AM to 11:15 AM — Royal Palm IV-VIII

MG312

The Undesirable Result in Reconstructive Surgery

At the conclusion of this session, participants should be able to: 1) Predict which reconstructive techniques may be more likely to produce undesirable surgical outcomes, 2) Identify reconstructive techniques that should allow greater surgical success, and 3) Plan revision procedures to improve surgical outcomes.

Moderator: Jonathan L. Cook, MD

Panelists: Marc D. Brown, MD; Leonard M. Dzubow, MD; J. Ramsey Mellette, Jr., MD; R. Stan Taylor, III, MD; John A. Zitelli, MD

11:15 AM to 12:00 PM — Royal Palm IV-VIII

MG313

Morning at the Movies: Mohs Surgery and Reconstruction

At the conclusion of this session, participants should be able to: 1) Learn new techniques for processing Mohs specimens, 2) Learn diverse approaches for cartilage graft harvesting, and 3) Learn fine points of reconstructive techniques.

Moderators: Michael R. Migden, MD; Tri H. Nguyen, MD

11:15 AM – 11:23 AM

Blepharoplasty as It Applies to Reconstruction

Hayes B. Gladstone, MD

11:23 AM - 11:31 AM

Cheek to Nose Staged Flap

Christopher J. Miller, MD

11:31 AM - 11:39 AM

Intra-operative Relaxing Incisions for Tissue Flattening

Rungsima Wanitphakdeedecha, MD

11:39 AM - 11:47 AM

007 The Wave Flap

Michael R. Migden, MD

11:47 AM - 11:55 AM

Cartilage Graft Harvesting - How Many Ways?

Tri H. Nguyen, MD

11:55 AM - 12:00 PM

Questions

12:00 PM to 3:00 PM — Orchid Ballroom

Exhibit Hall open; last time to visit the Exhibits and Posters

12:00 PM to 1:00 PM

MG314

Legality and Ethics — Royal Palm IV-VIII

At the conclusion of this session, participants should be able to: 1) Recognize ethical dilemmas, 2) Recognize behavior that may be seen as unethical, and 3) Understand ways to resolve ethical conflict.

Moderator: Mary E. Maloney, MD

Panelists: Hubert T. Greenway, Jr., MD; Victor J. Marks, MD; Suzanne Olbricht, MD

1:00 PM to 3:00 PM — Orchid Ballroom

Lunch in the exhibit hall; meeting adjourns for afternoon activities

1:00 PM to 2:00 PM

Fellowship Directors' Session — Acacia IV-VI

1:00 PM to 2:00 PM — Vista Ballroom (Lobby Level)

WDS/ASDS Networking Luncheon

3:00 PM to 7:00 PM

Exhibit and Poster tear-down

7:00 PM to 8:30 PM — Sunset Deck (Lobby Level)

Fellow-in-Training Reception

SCIENTIFIC PROGRAM

Sunday, May 06, 2007

7:00 AM to 10:00 AM — Royal Palm Foyer & Acacia VII
Registration and AV Preview

7:15 AM to 8:45 AM
MB400 — Royal Palm III
Reconstructive Challenges
At the conclusion of this session, participants should be able to: 1) Identify principles behind various reconstructive techniques, 2) Visualize several different reconstruction options for defects, and 3) Learn techniques to reconstruct complicated and large defects.
Ken K. Lee, MD

MB401 — Royal Palm II
Pearls and Pitfalls for the New Mohs Surgeon
At the conclusion of this session, participants should be able to: 1) Gain greater awareness of challenges in starting up practice, 2) Understand keys in obtaining increased office efficiency, and 3) Understand the importance of seeking advice from colleagues.
Michael L. Hadley, MD; Payam Tristani-Firouzi, MD

MB402 — Royal Palm I
Unusual Tumor CPC
At the conclusion of this session, participants should be able to: 1) Understand key pathologic features of rare tumors, 2) Identify positive versus negative features of rare tumors, and 3) Better judge a tumor as benign or malignant.
Sumaira Zareen Aasi, MD; Nanette Liegeois, MD, PhD; Suzanne Olbricht, MD

MB403 — Acacia IV-VI
Complex Issues with Malignant Melanoma
At the conclusion of this session, participants should be able to: 1) Appreciate the background, rationale, and limitations of sentinel lymph node biopsy, 2) Identify current applications of sentinel lymph node biopsy for melanoma in clinical practice, 3) Understand the issues around outcomes of malignant melanoma in solid organ transplant patients, and 4) Understand the issues of management of malignant melanoma in solid organ transplant patients.
Christopher K. Bichakjian, MD; Leslie Jayne Christenson, MD

MB404 — Mangrove I & II
Office Safety
At the conclusion of this session, participants should be able to: 1) Identify office safety issues, 2) Review pearls and potential pitfalls, and 3) Discuss management of possible complications.
Joel Lee Cohen, MD; Edgar F. Fincher, MD; Thomas E. Rohrer, MD

8:00 AM to 8:50 AM
Diagnostic Quality Control Review — Royal Palm IV-VIII
Committee: Frederick S. Fish, III, MD, Co-Chair; Girish S. Munavalli, MD, MHS, Co-Chair; Christie Travelute Ammirati, MD; David S. Becker, MD; John K. Geisse, MD; James Gardner Lahti, MD, MPH; Susana M. Leal-Khouri, MD; Carl F. Schanbacher, MD; Chrysalyne D. Schmults, MD

8:50 AM to 9:00 AM
Break

9:00 AM to 10:00 AM
MG410 — Royal Palm IV-VIII
Revision Surgery
At the conclusion of this session, participants should be able to: 1) Learn refinement techniques to optimize reconstruction, 2) Understand the benefits and limitations of various scar revision techniques, and 3) Learn how to repair an ectropion, ptotic brow, bulky flap, and many more.
Moderator: Ken K. Lee, MD
Panelists: J. Ramsey Mellette, Jr., MD; Tri H. Nguyen, MD

SCIENTIFIC PROGRAM

Sunday, May 06, 2007 (continued...)

10:00 AM to 12:00 PM Royal Palm IV-VIII

MG411

Cosmetic Procedures for the Mohs Surgeon

At the conclusion of this session, participants should be able to: 1) Understand the indications for new local anesthesia cosmetic procedures, 2) Describe techniques to minimize complications in cosmetic procedures, and 3) Incorporate techniques to minimize misunderstandings with surgical patients.

Moderators: Hayes B. Gladstone, MD; Greg S. Morganroth, MD

10:00 AM – 10:12 AM
The Art of Filler for Facial Rejuvenation
Roberta D. Sengelmann, MD

10:12 AM - 10:24 AM
Update on Botulinum Toxin Treatment
Isaac M. Neuhaus, MD

10:24 AM - 10:36 AM
New Skin Resurfacing Techniques
Edgar F. Fincher, MD

10:36 AM - 10:48 AM
State-of-the-art Cosmetic Pearls from Stanford
Hayes B. Gladstone, MD

10:48 AM - 11:00 AM
Panel Discussion

11:00 AM - 11:12 AM
Minimizing Misunderstandings with Cosmetic Patients
Greg S. Morganroth, MD

11:12 AM - 11:24 AM
Management and Prevention of Face Lift Complications for Mohs Surgeons
Greg S. Morganroth, MD

11:24 AM - 11:36 AM
Filler Complications: Understanding, Avoiding and Managing
Joel Lee Cohen, MD

11:48 AM - 12:00 PM
Panel Discussion

12:00 PM
Meeting adjourns

POSTER PRESENTATIONS

101 **The Experience of Perineural Skin Cancer at Saint Louis University Department of Dermatology**
Erin J. Allen, MD; Summer R. Youker, MD; M. Yadira Hurley, MD; Anne Thai; Mark A. Varvares, MD; Scott W. Fosko, MD

102 **The Truth about Over-the-Counter Scar Products: False Claims of Efficacy**
Alissa C. Wilmot; Christopher J. Miller, MD

103 **The Importance of Reviewing Pathology Specimens before Mohs Micrographic Surgery**
Susan T. Butler, MD; Joshua Mandrell; Summer R. Youker, MD

104 **Effective Regional Anaesthesia of the Second and Third Divisions of the Trigeminal Nerve (V2, V3) Using a Single Cutaneouns Entry Point**
Seaver L. Soon, MD; Brian N. Streams, MD; Jeffrey S. Eaton, MD

105 **Anatomic Variation of Secondary Intention Healing**
Daniel B. Stewart, MD, PhD; Juliet L. Gunkel, MD; Stephen N. Snow, MD

107 **Adjuvant Radiotherapy for High Risk Cutaneous Squamous Cell Carcinomas: A Systematic Review of the English Literature**
Anokhi H. Jambusaria, MD; Nana Smith, MD; Rhonda Quain, MD; Christopher J. Miller, MD; Harry Quon, MD; Chrysalyne Schmults, MD

108 **Utilization of Mohs Micrographic Surgery and Related Procedures in the Medicare Population**
Julie A. Neville, MD; Steven Feldman, MD; Phillip M. Williford, MD; David J. Leffell, MD

109 **Chemowraps for Diffuse Squamous Cell Carcinoma of the Extremities**
Jeff Petersen, MD; Margaret Mann, MD; David Birk, MD

110 **Surgical Excision of Vegetative Herpes Simplex Virus Infection in Immune Suppressed Patients**
Vinh Chung, MD, MPharm Sci, MTh; Douglas C. Parker, MD, DDS; Sareeta Parker, MD

111 **Earlier Detection of Second Primary Basal Cell Carcinomas in Mohs Surgery Patients**
David Lortscher; Shawn B. Allen, MD; Roberta D. Sengelmann, MD

112 **Management of Nonmelanoma Skin Cancers with Bony Invasion: Therapeutic Decision-Making**
Suneeta S. Walia, MD; David E. Kent, MD

113 **An Approach to Lower Eyelid Reconstruction after Mohs Micrographic Surgery for Squamous Cell Carcinoma Involving the Lower Lid Margin**
Erica A. Mailler-Savage, MD; Hugh M. Gloster, MD

114 **Erosive Pustular Dermatosis of the Scalp: A Mimic of SCC**
Dori Goldberg, MD; Jeremy S. Bordeaux, MD; Mary E. Maloney, MD

115 **Complete Histologic Margin Control for Vertical Full-Thickness Disc or Elliptical Excisions of the Skin: A Variation of the Traditional Mohs Technique**
Arash Kimyai-Asadi, MD; Leonard H. Goldberg, MD; Ming H. Jih, MD, PhD

116 **Eruptive Post-Operative Squamous Cell Carcinomas Exhibiting a Pathergy-Like Reaction around Sites of Cutaneous Trauma**
Suleman Bangash, DO; W. Harris Green, MD; Armand B. Cognetta, Jr., MD

117 **Utility of High Frequency Ultrasound in the Pre-Operative Assessment of Margins of Basal Cell and Squamous Cell Carcinoma**
Chrysalyne D. Schmults, MD; Anokhi H. Jambusaria, MD; Christopher J. Miller, MD; Joel Gelfand, MD

POSTER PRESENTATIONS (continued...)

118 **Prospective, Investigator-Blinded, Clinical Outcome Study Comparing Post-Operative Scaring Using Superficial Tissue Scoring versus Surgical Marker During Mohs Micrographic Surgery**
Daniel B. Eisen, MD; Thomas King, MD

119 **Modified Sling Myocutaneous Island Pedicle Flap**
Andrea Willey, MD; Diamondis J. Papadopoulos, MD; Ken K. Lee, MD; Neil A. Swanson, MD

120 **Double Island Pedicle Advancement Flap Repair of Defects Involving the Vermillion Border of the Lower Lip**
Allison Hoffman, MD; Peter K. Lee, MD, PhD

121 **Multiple Squamous Cell Carcinomas in the Setting of Psoriasis Treated with Etanercept: A Report of 4 Cases and Review of the Literature**
Alyssa R. Hoverson, MD; Jerry D. Brewer, MD; Gina C. Ang, MD; Randall K. Roenigk, MD

122 **Comparative Efficacy of Topical 5-Aminolevulinic Acid Photodynamic Therapy for Treatment of Actinic Keratoses with Using Intense Pulsed Light Versus Ambient Light: A Single-Blinded Randomized Controlled Trial**
Murad Alam, MD; Stephanie Liu; Lucile White, MD; Simon Yoo, MD

123 **Tumors of the Eyelids: A 9 Year Look at 961 Lesions Treated with Mohs Micrographic Surgery**
Justin J. Vujevich, MD; Leonard H. Goldberg, MD

124 **Are Oral Quinolones Necessary to Prevent Postoperative Infections of Auricular Second-Intention Wounds?**
Erica A. Mailler-Savage, MD; Hugh M. Gloster, MD

125 **Use of the Tympanoplasty Blade and a Novel Dressing Technique to Facilitate Auricular Surgery**
Deborah F. MacFarlane, MD, MPH

126 **Potential Complications of Surgery in the Supraclavicular Fossa**
Carmen D. Campanelli, MD; Yehuda Eliezri, MD; Edward Desciak, MD

127 **Surgical Complications: Beyond the "Terrible Tetrad"**
Ali Hendi, MD

128 **Staged Excision for Lentigo Maligna (LM) and Lentigo Maligna Melanoma (LMM): A Retrospective Analysis of 111 Cases**
Carole Hazan, MD; Steve Dusza, MPH; Ruby Delgado, MD; Klaus Busam, MD; Allan Halpern, MD; Kishwer Nehal, MD

129 **Use of LET (Lidocaine, Epinephrine, Tetracaine) Gel to Reduce Pain During Mohs Micrographic Surgery**
Richard P. James, Jr., MD; John G. Albertini, MD; Mary F. Farley, MD; Paula S. Vogel, MD

130 **Intraoperative Relaxing Incisions (IORI) in Mohs Micrographic Surgery**
Rungsima Wanitphakdeedecha, MD; Teris M. Chen, MD; Michael R. Migden, MD; Tri H. Nguyen, MD

131 **Atypical Dermatofibromas of the Face**
Angela Hutcheson, MD; Katerina G. Chiller, MD

132 **Vascular Clips for Controlling Intraoperative Bleeding during Mohs Micrographic Surgery**
Richard Krathen, MD; Heidi Donnelly, MD

133 **Fillers for Post-Surgical Depressed Scars After Skin Cancer Reconstruction**
Aradhna Saxena, MD; David Kasper, MS IV, MBA; Greg S. Morganroth, MD; Joel L. Cohen, MD

134 **Bleeding Complications and Perioperative Anticoagulation in Cutaneous Surgery**
A. Yasmine Kirkorian; Ellen S. Marmur, MD

135 **Photoacoustic Imaging of In-Vivo Suspected Melanoma and Ex-Vivo Pathologic Correlation**
Jeff Petersen, MD; Margaret Mann, MD

POSTER PRESENTATIONS (continued...)

136 **Relative Risk of Nonmelanoma Skin Cancer in Patients with Multiple Simultaneous Solid Organ Transplants: A Retrospective Case-Control Study**
Simon Yoo, MD; Lucile White, MD; Michael Abecassis, MD, MBA; Murad Alam, MD

137 **Recurrent Basal Cell Carcinoma of the Scalp with Bony Invasion: A Diagnostic Clinical Hallmark**
Suneeta S. Walia, MD; David E. Kent, MD

138 **The Utility of the Bilobe Flap: Distal Nose and Beyond**
Joel L. Cohen, MD; Jamison Strahan, MD

139 **Characteristics of Lentigo Maligna Treated in a Mohs Practice and Predictive Factors for Invasion**
Priya Zeikus, MD; Suzanne Olbricht, MD

140 **Plaque-Type Syringomata Mimicking Microcystic Adnexal Carcinoma: A Report of Two Cases**
Matthew C. McClelland, MD; Pitiporn Suwattee, MD; Valda N. Kaye, MD; Peter K. Lee, MD, PhD

141 **The Flipped Island Pedicle Flap: A New Twist on an Old Favorite**
Brad Kovach, MD; Roberta Sengelmann, MD

142 **Translational Significance of Microarray on Actinic Keratoses**
Sheldon Sebastian, MD; R. Steven Padilla, MD, MBA; Gavin Pickett, PhD

143 **Full Thickness Skin Graft (FTSG) Repair for Lower-Extremity (below knee) Tumors Treated by Mohs Micrographic Surgery (MMS)**
Monika Srivastava, MD; Brian Jiang, MD

Thursday, May 3, 2007 - MG111 Tromovitch Award Abstracts

9:30 AM-9:38 AM

PRESENTER: Nicole M. Annest, M.D., M.S.

TITLE: The Utility of FDG-PET/CT Imaging in the Follow-Up Management of Patients with Primary Cutaneous Malignant Melanoma

AUTHORS: Nicole M. Annest, M.D., M.S.; Sarah J. Grekin, B.S.; Marta J. VanBeek, M.D., M.P.H.; Hubert T. Greenway, M.D.

Purpose: The goal in monitoring patients with a history of cutaneous malignant melanoma is to detect and promptly treat recurrent disease in order to improve both patient survival and quality of life. In contrast to the substantial body of literature guiding the evidence-based initial staging of melanoma patients, there is a relative dearth of data to guide many practices for melanoma follow-up management. 2-deoxy-2(F-18)fluoro-D-glucose (FDG) positron emission tomography (PET) scanning combined with computed tomography (CT) scanning (PET/CT) has recently been demonstrated to have efficacy in the initial staging of melanoma patients. However, the appropriate clinical setting in which to use this highly sensitive, costly tool for follow-up management of melanoma patients has not yet been defined. Current NCCN guidelines for follow-up of melanoma patients recommend CT when "clinically indicated", though the guidelines do not provide insight into the use of PET/CT imaging for melanoma follow-up. The purpose of our study was to evaluate the utility of PET/CT in the follow-up management of patients with a history of primary cutaneous malignant melanoma. Specifically, we sought to determine the utility of PET/CT in relationship to patient history and physical examination findings, particularly in the setting of a completely normal history and examination.

Design: In this retrospective analysis, a total of 150 PET/CT scans in patients seen at an academic university setting were examined. Data including patient age, patient sex, tumor location, Breslow depth, ulceration, LDH, lymph node sampling results, AJCC stage, time between diagnosis and PET scan, patient clinical history, physical examination, and patient mortality were recorded. PET/CT scan results were recorded as either normal or abnormal. Based upon subsequent histopathologic verification and clinical course, scan results were then categorized as true positive, true negative, false positive, or false negative. The effect of patient-specific variables on the odds of a true-positive PET/CT scan was modeled with both univariate and multivariate logistic regression analysis.

Summary: Our study population consisted of eighty patients with an average age at diagnosis of 57.5 years. 10% (8/80) of our study patients had a history of AJCC Stage I melanoma, 36% (29/80) Stage II, 45% (36/80) Stage III, and 9% (7/80) Stage IV. Overall, PET/CT was found to be 98% sensitive and 96% specific for detection of recurrent disease in our patient population. Patient history and physical exam findings were a significant predictor of a true-positive PET/CT scan. The overall likelihood of detection of occult disease on PET/CT scanning was 0.63 (95% CI 0.55 – 0.71) for patients with either an abnormal history or abnormal physical examination, while there was only a 0.27 (95% CI 0.20 – 0.34) likelihood of disease detection for patients with a completely normal patient history and physical examination. In multivariate analysis, the odds-ratio of a true positive PET/CT scan was 4.92 for patients with abnormal histories while the odds-ratio was 4.68 for patients with abnormal physical exams.

Conclusions: This data confirms the intuition of the astute clinician – imaging studies are more likely to detect recurrent disease in melanoma patients with abnormal histories or physical exam findings. However the finding that over one-quarter of our study patients with a completely normal history and physical examination had recurrent disease which was detected on PET/CT imaging is a clinically significant finding. As the strong majority of our study patients had AJCC Stage II or Stage III disease, our findings demonstrate the utility of PET/CT as a highly sensitive and specific screening modality in this patient population, even in cases in which the scan may not seem "clinically indicated". In summary, follow-up PET/CT imaging in melanoma patients is effective in the detection of recurrent disease, even in the absence of abnormal patient findings. While our study results are promising, future studies are needed to demonstrate the effect of PET/CT imaging on patient outcomes.

9:38 AM-9:46 AM

PRESENTER: Steven Cronquist, MD

TITLE: Response of Lentigo Maligna to Treatment with Topical Imiquimod; A Series of Ten Cases.

AUTHORS: Steven Cronquist, MD; Donald J. Grande, MD

Purpose: Topical imiquimod has gained recent attention in the treatment of lentigo maligna (LM). We report a series of ten cases of biopsy-proven LM involving the face, and histologically evaluate the response to pretreatment with topical imiquimod followed by definitive treatment with modified Mohs micrographic surgery.

Design: The study consisted of patients with the diagnosis of biopsy-proven facial LM referred to our practice for modified Mohs micrographic surgery. A total of ten patients successfully completed pretreatment with imiquimod, followed by surgery. All patients underwent a six-week course of therapy with topical imiquimod 5% cream. The cream was applied once daily to the entire lesion on Monday through Friday of each week. Upon completion of six weeks of therapy, a rest period of two weeks

was allowed prior to surgery. Definitive treatment consisted of modified Mohs micrographic surgery. The initial layer consisted of the entire clinical lesion (full skin thickness) plus a margin of three to five millimeters, depending on location. The specimen was sent for rush permanent sections. A dermatopathologist examined the specimen for any residual LM or other melanocytic atypia.

Summary: Three of ten cases demonstrated no residual LM or other melanocytic atypia on histologic examination of the entire specimen. One case demonstrated invasive melanoma (Breslow depth of 0.8 mm), requiring revision of the original diagnosis. The remaining six cases demonstrated residual LM (five cases) or residual severe melanocytic atypia (one case).

Conclusions: This series demonstrates the variability of response to treatment of LM with topical imiquimod. Select patients (3 of 10) demonstrated excellent response with no histologic evidence of residual. In contrast, the majority had residual disease, including one case of invasive melanoma. Careful case selection, management, and follow-up are warranted when considering imiquimod's therapeutic role in the treatment of LM.

9:46 AM-9:54 AM

PRESENTER: Ross M. Campbell, M.D.

TITLE: "Confusing Follicular Proliferations" Seen on Mohs Slides: Dermatopathologic Correlation and Review of Basaloid Mimickers

AUTHORS: Ross M. Campbell, M.D.; Christopher Harmon, M.D,; James E. Elder, M.D.; Gary Monheit, M.D.

Purpose: Distinguishing between benign follicular proliferations and basal cell carcinoma is a sometimes frustrating and often confusing duty of Mohs surgeons. We have assembled a series of Mohs horizontal specimens in which we attempt to better clarify the distinguishing features of diagnoses and review basaloid mimickers of true carcinoma.

Design: A series of horizontally prepared Mohs sections were collected for review from our Mohs practice. The specimens were reviewed with 2 dermatopathologists. Distinguishing criteria were then proposed for the most common diagnoses confused with basal cell carcinomas.

Summary: Distinguishing features of confusing follicular proliferations were assembled. Each slide is reviewed for salient features of diagnosis. Other basal cell mimicking tumors were reviewed with and emphasis on distinguishing benign tumors from true basal cell carcinoma.

Conclusions: Distinguishing benign basaloid proferations from carcinoma is of paramount importance for the Mohs surgeon. We have attempted to provide a useful guide to help both trainees and experienced surgeons better differentiate these entities in order to minimize unnecessary surgical layers.

9:54 AM-10:02 AM

PRESENTER: James R. DeBloom, M.D.

TITLE: The Characteristics and Invasive Growth Potential of Locally Recurrent Malignant Melanoma and Melanoma In Situ

AUTHORS: James R. DeBloom II, M.D.; David G. Brodland, M.D.; John A. Zitelli, M.D.

Purpose: Although locally recurrent melanoma and melanoma in situ continues to be a concern for all dermatologic surgeons, little is known about the potential for these tumors to recur locally with greater Breslow depth and therefore poorer prognosis. In particular melanoma in situ is considered by many physicians to be a precursor tumor with only superficial potential. To what degree these tumors have the potential to recur with an invasive growth pattern is largely unknown. Our goal is to analyze the features of recurrent melanoma and melanoma in situ- where are recurrences most common, when do they recur, what changes if any are seen in Breslow depth at the time of recurrence? By having a better understanding of locally recurrent melanoma we can provide more accurate information to our patients and potentially improve our initial treatments to limit the chance of local recurrence.

Design: Over the past 25 years we have treated 202 locally recurrent melanomas and melanoma in situs. An extensive chart review was performed for all of these patients. For each case, location, initial treatment, age at initial treatment and recurrence, pathology at initial biopsy and biopsy at recurrence as well as overall outcome were reviewed and tabulated.

Summary: 202 cases were reviewed. The average age at recurrence was 69 years old and 54% were male. The most common locations for a local recurrence were the right cheek, nose and left cheek. Standard excision was the most common failed initial treatment (48%) followed by cryosurgery (20.3%). Of the 84 lesions that were initially treated as melanoma in situ 19 (22.6%) recurred locally with an invasive component. The mean Breslow depth at the time of local recurrence for these lesions was 0.94mm with an average disease-free interval of 61 months. For these 19 recurrent cases the average follow-up after recurrence was 67.5 months. 9(47.4%) were dead of all causes with one death directly attributable to melanoma with systemic metastases. For initially invasive melanomas there was a mean change in Breslow depth from 1.47mm initially to 1.72mm at time of recurrence.

Conclusions: With this review we provide the clinician with a better understanding of what to expect when and if a melanoma locally recurs. The most striking finding was the potential for melanoma in situ to recur locally as an invasive melanoma if not completely and adequately excised at the time of initial treatment almost 23% of the time. Although most dermatologic

surgeons recognize melanoma in situ as a serious and potentially dangerous tumor, too often it is underestimated and treated in a suboptimal fashion. It is imperative to completely remove the entire melanoma at the time of intial treatment whether it be in situ or invasive so that local recurrences with potentially poorer prognoses can be limited if not prevented.

Melanoma in situ recurring as malignant melanoma

Number of initial MIS lesions	84
MIS lesions with invasive component at time of recurrence	19 (19/84, 22.6%)
Mean Breslow for recurrent invasive lesions	0.94mm
Mean Clark's for recurrent invasive lesions	2.6
Mean disease-free interval	61 months
Most common initial treatment	Excision (10/19, 52.6%)
Most common site	Cheek

10:02 AM-10:10 AM

PRESENTER: Michael Murphy
TITLE: The Frequency of Errors in Reading Mohs Pathology Sections over A One-Year Fellowship
AUTHORS: Michael Murphy; David Brodland, MD; John Zitelli, MD
Purpose: The purpose of this study is to examine how fellows in Mohs surgery learn to correctly read and map Mohs sections and the period of time needed to obtain expertise in this crucial component of Mohs surgery.
Design: This is a prospective single institution pilot study with plans to expand to a multi-institutional study in one year. The study was designed to track errors involving the reading of Mohs pathology sections based on a graded scale over the course of a year long Mohs surgery fellowship. All sections were pre-read by the Mohs fellow and marked on the Mohs map. Subsequently, all sections were reviewed by the Mohs program directors and the fellow together. Any errors were noted and scored based on the following scale. Serious errors: Errors in reading and mapping Mohs sections which could potentially lead to a recurrence of the cancer. These were scored as 3 points Errors: Errors in reading and mapping of Mohs sections which could lead to taking additional layers/tissue when it was not necessary. These were scored as 2 points. Equivocal errors: The fellow's judgment and the program director's judgment differ and upon review by the program directors, the errors are deemed either equivocal in nature or insignificant to the patient's outcome. These were scored as 1 point. A score of 0 was given for every case in which the program director and the fellow concurred in the reading and mapping of the Mohs section. Scores were tallied daily, summed, and a mean error score per section read was obtained. Serious errors were tracked separately to analyze their occurrence trend over time. The nature of the errors was categorized and later analyzed to determine the faulty process leading to the error. The categorization enabled the directors to adjust the teaching methods utilized for subsequent trainees.
Summary: Two months of data are now collected. Ten months of data will be available at the time of the Mohs college meeting. The mean error score has declined in the second month. Serious errors still occur but the rate and total number of serious errors has decreased. Errors did not decrease precipitously over a short period of time but rather at a gradual rate over time.
Conclusions: Errors in the reading and mapping of Mohs sections are a common occurrence for the inexperienced Mohs fellow. Learning Mohs surgery takes longer than a weekend or a month of study as serious errors are not eliminated over a short period of time. Formal and ongoing testing of the Mohs fellow by their program director is essential to improve the Mohs fellow's ability to read and map Mohs sections and to minimize the number of errors which could lead to recurrence or additional unnecessary layers. We invite additional institutions to participate in this study with their Mohs fellows to strengthen our conclusions.

Thursday, May 3, 2007 - MG116 Abstract Session

4:00 PM-4:08 PM

PRESENTER: Natalie I. Bene, M.D., Ph.D.

TITLE: Mohs Micrographic Surgery for Treatment of Cutaneous Melanoma In Situ: Are Frozen Sections Adequate?

AUTHORS: Natalie I. Bene, M.D., Ph.D.; Brett M. Coldiron, M.D.

Purpose: Mohs micrographic surgery represents a promising option for treatment of cutaneous melanoma in situ, especially in cosmetically and functionally sensitive areas (1,2). However, interpretation of melanocytic lesions by fresh frozen sections may be difficult (3), and Mohs for melanoma remains controversial. The purpose of this prospective study was to determine if margins called clear by Mohs surgery were clear by paraffin-embedded sections.

Design: We treated 146 patients referred for treatment of primary cutaneous melanoma in situ over 10 years. All melanomas were excised with Mohs micrographic surgery technique. Subclinical extension of a tumor was determined with Wood's lamp prior to the excision of the first layer. Mohs frozen sections were used to evaluate the margins of each specimen. Vertical frozen sections of the bulk of the tumor were used as a positive control. After achievement of clear margins with the Mohs technique, an additional 1 mm layer of epidermis and dermis was taken for formalin-fixed, paraffin-embedded sections. The paraffin-embedded sections were evaluated by a board certified dermatopathologist. After the confirmation of clear margin by paraffin-embedded sections, the defects were repaired.

Summary: Out of 146 cases treated, the majority of melanoma in situ was located in the head and neck area with the distribution shown in Table 1. Some cases of malignant melanoma in situ were located on the trunk and extremities, with the distribution shown in Table 2. The mean of 1.8 stages was required to clear the tumor. The highest number of stages was seven in one case of malignant melanoma in situ on the neck. The largest tumor in this series was 15.3x12.1 cm malignant melanoma in situ located on the left lower eye-lid continuing to the left cheek, and it took three stages to clear this tumor. Out of 146 cases of malignant melanoma in situ, eight cases had a positive margin on paraffine-embedded sections, resulting in 95% clearance rate by Mohs frozen sections. This clearance rate of malignant melanoma in situ is significantly higher than 83%-85% clearance rate with the standard surgical excision with 6 mm margin(4-6).

Conclusions: The gold standard for determining margins of excision of a melanoma is evaluation of paraffin-embedded sections. We used it as an end point in evaluation of excisional margins of tumors treated with Mohs micrographic surgery. We conclude that by these criteria, Mohs micrographic surgery is a viable method for treatment of cutaneous malignant melanoma in situ which may give a higher cure rate and yield smaller defects in comparison with surgical excision with recommended margins, especially in such areas as head and neck, genitals and digits. References 1. Zitelli JA, Brown CD, Hanusa BH. Mohs micrographic surgery for treatment of primary cutaneous melanoma. J Am Acad of Dermatol. 1997; 37:236-245. 2. Bricca GM, Brodland DG, Ren D, Zitelli JA. Cutaneous head and neck melanoma treated with Mohs micrographic surgery. J Am Acad Dermatol. 2005; 52: 92-100. 3. Barlow RJ, White CR, Swanson NA. Mohs micrographic surgery using frozen sections alone may be unsuitable for detecting single atypical melanocytes at the margins of melanoma in situ. Br J Dermatol. 2002; 142:290-4. 4. Zitelli JA, Brown CD, Hanusa BH. Surgical margins for excision of primary cutaneous melanoma. J Am Acad of Dermatol. 1997; 37:422-429. 5. Bub JL, Berg D, Slee A, Odland PB. Management of lentigo maligna and lentigo maligna melanoma with staged excision. Arch Dermatol. 2004; 140:552-558. 6. Zitelli JA. Surgical margins for lentigo maligna, 2004. Arch Dermatol 2004; 140:607-608.

Table 1. Distribution of malignant melanoma in situ on head and neck.

Cheek	Nose	Neck	Forehead	Ear	Scalp	Pre-auricular	Temple	Eyelid	Chin	Eyebrow	Medial canthus	Lip	Jaw
36	26	13	12	10	8	8	5	5	2	1	1	1	1

Table 2. Distribution of malignant melanoma in situ on trunk and extremities.

Back	Leg	Foot	Chest	Shoulder	Arm	Thumb	Nipple
3	3	2	2	2	2	2	1

4:08 PM-4:16 PM

PRESENTER: Ali Hendi, MD
TITLE: Is it Benign Melanocytic Hyperplasia or Melanoma?
AUTHORS: Ali Hendi, MD
Purpose: Surgical treatment of lentigo maligna (LM)/ LM melanoma (LMM) can be challenging. This is due to the fact the margins of the tumor are often not clinically visible. Also, the pathologic examination of the margins can be difficult as there has not been a widely accepted criterion for distinguishing melanocytic hyperplasia in sun-damaged skin from that of LM/LMM. The purpose of this presentation is to review recently published data and its utility in the management of patients with LM/LMM using the Mohs technique.
Design: Normal skin of the head and neck from 149 patients was stained with the Mart-1 immunostain. The density, confluence and depth of adnexal extension of melanocytes were evaluated.
Summary: Benign melanocytic hyperplasia seen in sun-damaged skin has an increased number of melanocytes (15-20 per high power field), confluence (up to nine side by side melanocytes) and extension along the adnexal epithelium. The utility of this data in the treatment of LM/LMM is discussed with the aid of case presentations.
Conclusions: The findings of increased melanocyte density, confluence, and adnexal extension alone do not substantiate a diagnosis of melanoma. In excising melanomas on sun damaged skin, these finding should not be used as a criterion to excise more tissue.

4:16 PM-4:24 PM

PRESENTER: Neil J. Mortimer, MBChB
TITLE: Muscular Hinge Flaps: Technique and Applications in Dermatological Surgery
AUTHORS: Neil J. Mortimer, MBChB; Paul J. Salmon, MD; Sarah Hill, MBChB
Purpose: Facial skin cancer surgery frequently results in deep surgical defects. Sacrifice of the periosteum and perichondrium from underlying bone or cartilage may be necessary for complete tumour extirpation. When repairing such defects, replacement of soft tissue volume loss needs to be addressed during reconstruction to achieve a cosmetically acceptable outcome. If a local skin flap is not an option either due to the size or location of the defect, then a skin graft may need to be utilised. In this situation, a muscular hinge flap can provide both the required volume and a vascular bed to resurface exposed bone or cartilage. Hinge flaps also have an application in the replacement of soft tissue volume loss when reconstructing deep defects of the vermillion of the lips. This allows preservation of normal contour prior to resurfacing with thin mucosal flaps.
Design: We describe four sites on the face where the muscular hinge flap can be a useful tool in reconstructive surgery: Orbicularis oris hinge flaps for reconstruction of the lower lip; nasalis hinge flaps for nasal reconstruction; frontalis hinge flaps for reconstruction of the forehead; and auricularis posterior hinge flaps for reconstruction of the posterior pinna.
Summary: For each of these hinge flaps we describe our personal experience with respect to the technique and applications with illustrated case examples.
Conclusions: Muscular hinge flaps have an application when repairing surgical defects that require soft tissue volume replacement and/or resurfacing of exposed bone or cartilage prior to skin grafting. Knowledge of their application and technique is a useful addition to the reconstructive repertoire of the dermatological surgeon.

4:24 PM-4:32 PM

PRESENTER: Rachel E. Sahn
TITLE: Sentinel Lymph Node Biopsy for High-Risk Nonmelanoma Skin Cancers
AUTHORS: Rachel E. Sahn; Pearon G. Lang, MD
Purpose: The objectives of our study were to report our experience with patients who underwent sentinel lymph node biopsy (SLNB) for the staging of a high-risk nonmelanoma skin cancer (NMSC) and to help establish clinical and histologic criteria that might predict a positive SLNB in such individuals.
Design: We identified 13 patients with a high-risk NMSC who underwent SLNB between 1998 and 2006 and conducted a retrospective review of their medical records and tumor pathology. Their status as regards tumor recurrence and survival was obtained when possible.
Summary: Of 13 patients, 9 had a squamous cell carcinoma (SCC), 2 had a sebaceous gland carcinoma, 1 had a porocarcinoma, and 1 had an atypical fibroxanthoma. All SLNBs were negative for metastatic disease, but one patient, who appears to have had a false-negative SLNB, later developed regional node involvement and eventually died of metastatic disease. Another patient developed distant metastatic disease without regional node involvement and subsequently died.
Conclusions: Compared to melanoma, SCCs of the skin are much less predictable as regards their tendency to metastasize to the regional lymph nodes. Although the SLNB appears to be a reliable staging procedure for NMSC (especially SCC), the yield may be too low to justify its routine use in this patient population. More data is needed to determine when the SLNB is indicated in the management of a NMSC.

Patient and Tumor Characteristics

Patient	Age	Sex	Immuno-suppressed	Cancer Type	Tumor Location	Tumor Size, cm	Time Present	Recurrent	Tumor Invasion or Spread	Growth Pattern	Clark's Level	Differentiation	Treatment of Staged Tumor	Follow-up status post SLNB
1	73	M	No	AFX	Temple	2.8 x 3.5 po	6 mo.	Yes (satellite)		Numerous mitoses	V		Mohs & post-op irradiation	Local satellite recurrence at 6 mo. w/ subsequent negative node dissection
2	82	M	No	Porocarcinoma	Cheek	3.1 x 3.8 po	> 12 mo.	Yes (satellite suspected)	Parotid gland	Single cell infiltration, small nests, infiltrating pattern, numerous mitoses	V	Poor	Excision	Alive and well at 9 mo.
3	66	F	No	Sebaceous Carcinoma	Forehead	3.7 x 7.1 po	several yrs.	No	Focally perineural, muscle	Small nests, infiltrating pattern	V	Poor	Mohs	Alive and well at 7 mo.
4	80	M	No	Sebaceous Carcinoma	Glabella	2.9 x 3.0 pr	> 1 mo.	No	Focally perineural, muscle	Single cell infiltration, small nests, infiltrating pattern	V	Mod/poor	Mohs	Deceased at 10 mo. Cause unknown
5	71	M	Yes	SCC	Forehead	10 x 12 po	24 mo.	Yes	Focally perineural, muscle	Single cell infiltration, small nests, infiltrating pattern, acantholysis	V	Mod/well	Mohs	Deceased at 5 mo. Chronic kidney disease
6	84	M	No	SCC	Zygoma	4.1 x 4.7 po	9 mo.	Yes (satellite)		Single cell infiltration, small nests, infiltrating pattern, acantholysis	V	Mod/well	Mohs & post-op irradiation	Alive and well at 7 mo.
7	63	M	Yes	SCC	Ear	2.0 x 3.0 pr	6 mo.	No	Perineural, vascular invasion	Single cell infiltration, small nests, infiltrating pattern, acantholysis	V	Mod/poor	Mohs	Alive and well at 4 yrs.
8	55	M	No	SCC	Lip	1.5 x 3.5 pr	18 mo.	Yes	Perineural, muscle	Small nests, acantholysis	V	Well	Mohs	Alive and well at 4 yrs.
9	52	M	Yes	SCC	Thumb	2.5 x 3.0 pr	7 mo.	No			V	Well	Mohs	Alive and well at 3 yrs.
10	81	M	No	SCC	Thumb	2.0 x 3.5 pr	12 mo.	No		Small nests, diffuse growth pattern, acantholysis	V	Mod/well	Mohs	Deceased at 9 mo. Metastatic disease (False-negative SLNB)
11	64	M	No	SCC	Chest	10 x 15 po	18 mo.	Yes (satellite suspected)	Perineural, ?lymphovascular invasion	Single cell infiltration, small nests, infiltrating pattern, acantholysis	V	Mod/well	Mohs & post-op irradiation	Deceased at 5 mo. Distant metastastic disease
12	54	M	No	SCC	Mid back	10.5 x 12.5 po	20 yrs.	No	Limited perineural, lymphovascular invasion	Single cell infiltration, infiltrating pattern, areas of BCC	V	Mod/well	Wide local excision	Alive and well at 1 mo.
13	70	M	Yes	SCC x 2	Leg	1) 4.5 x 5.2 pr 2) 6.9 x 7.1 pr	> 1 mo.	No	Muscle	Single cell infiltration, small nests, infiltrating pattern	V	Mod/well	Mohs & post-op irradiation	Deceased at 2 yrs. Metastasic disease from unrelated skin cancer

AFX, atypical fibroxanthoma; SCC, squamous cell carcinoma; pr, pre-operative; po, post-operative; BCC, basal cell carcinoma; SLNB, sentinel lymph node biopsy

4:32 PM-4:40 PM

PRESENTER: Arash Kimyai-Asadi, M.D.

TITLE: Margin Involvement After the Excision of Malignant Melanoma: The Need for Complete En-Face Examination of the Margins

AUTHORS: Arash Kimyai-Asadi, M.D.; Tracy Katz, B.A.; Leonard H. Goldberg, M.D.; Gabriel Ayala, B.S.; Steven Q. Wang, M.D.; Ming H. Jih, M.D., Ph.D.

Purpose: The standard treatment for cutaneous malignant melanoma is surgical excision followed by pathologic evaluation. Serial cross-sections of tissue (bread-loaf technique) may result in higher local recurrence rates than Mohs micrographic surgery, which histologically evaluates the entire surgical margin by using en-face tissue sectioning. The purpose of our study is to estimate the sensitivity of bread-loafing in detecting residual melanoma at the margins.

Design: A retrospective study of 43 malignant melanomas treated with Mohs micrographic surgery with positive margins after an excision with 5 mm margins was performed. The portions of the margins involved with melanoma were measured. The ability of bread-loafing to detect residual tumor was calculated. Reports from paraffin section pathology of the debulked specimens were utilized for comparative purposes.

Summary: The average linear extent of tumor found at the surgical margin was 1.6 ± 2.0 mm. Bread-loaf cross-sections performed every 1, 2, 4, and 10 mm have a 60%, 39%, 21%, and 10% chance of finding positive margins, respectively. In order to detect 90% and 100% of positive margins, bread-loafing must be performed every 0.2 mm and 0.1 mm, respectively. The fixed-tissue pathology reports indicated the presence of melanoma at the margins of the narrower debulking excision in only 28% of cases, whereas more peripheral Mohs sections indicated positive margins.

Conclusions: Bread-loaf cross-sections through excised melanoma specimens are unreliable at detecting residual melanoma at surgical margins. We recommend complete histologic margin control of the entire surgical margin by using en-face tissue orientation (Mohs technique) to reduce the risk of tumor recurrence after excision of primary cutaneous melanoma.

4:40 PM-4:48 PM

PRESENTER: Anthony J. Dixon, MD

TITLE: Bleeding Complications in Skin Cancer Surgery are Associated with Warfarin but Not Aspirin Therapy - A Prospective Study

AUTHORS: Anthony J. Dixon, MD

Purpose: To identify the risk factors for post operative bleeding following skin cancer surgery procedures, including the risk of warfarin and aspirin therapy.

Design: A 44 month prospective study of 5950 skin lesions treated on 2394 patients from July 2002. No patient ceased aspirin or warfarin unless INR exceeded 3.0.

Summary: The post operative bleeding complication incidence was 0.67% overall and was 2.5% (n=320) in patients taking warfarin Procedures had the following bleeding incidence: curettage 0.20% (1/488); skin flap repairs 1.02% (20/1958), simple excision and closure 0.42% (14/3364); skin grafts 4.95% (5/101); and wedge excision 0% (0/39). The ear was the only body site demonstrating an increased bleeding incidence: 2.16% (9/416) ($p<0.001$). Diabetic patients and smokers had no difference in bleeding incidence. Age was significant with an incidence of 0.17% (5/2947) in those under 67 years of age, and 1.19% (35/2939) in those older. ($p<0.001$) Binary logistic regression analysis revealed 4 independent risk factors for bleeding. These were: age sixty seven years or older, odds ratio (OR) 4.7 (95% confidence interval, 1.8 – 2.2), warfarin OR 2.9, (1.8 – 12.2), surgery on or around the ear OR 2.6 (1.2 – 5.7) and closure with a skin flap or graft OR 2.7 (1.4 – 5.3). The presence of two of these risk factors provides a sensitivity of 73% and a specificity of 72% for predicting a bleeding complication. Subjects taking aspirin were not at increased risk.

Conclusions: Warfarin therapy, increasing age, surgery on or around the ear and closure with flap or graft are independent risk factors for post operative bleeding complications in skin cancer surgery. Bleeds were inconvenient and not life threatening in contrast to the thrombo-embolic risk from ceasing warfarin and aspirin. Clinicians should ensure safe INR levels in patients on warfarin and special care with haemostasis and dressings in patients with two or more bleeding risk factors.

4:48 PM-4:56 PM

PRESENTER: Jerry D. Brewer, MD

TITLE: The Effects of Chronic Lymphocytic Leukemia on the Development and Progression of Malignant Melanoma

AUTHORS: Jerry D. Brewer, MD; Leslie J. Christenson, MD; Roger H. Weenig, MD; Amy L. Weaver, MS

Purpose: Malignant Melanoma (MM) is among the top 10 most commonly diagnosed cancers in the U.S., and causes significant morbidity and mortality. An association between MM and chronic lymphocytic leukemia (CLL) has been shown in prior studies. In particular, it has been shown that patients with CLL are more likely to develop MM compared to the normal population. In addition, the incidence of both MM and CLL are increasing. However, the clinical behavior of MM in patients with concomitant CLL, including tumor aggressiveness, response to therapy, recurrence, and mortality has not been studied. Our purpose was to determine the effect of CLL on the stage at presentation, recurrence rate, metastatic rate, and mortality of MM.

Design: A search of the master diagnosis index at Mayo Clinic was queried from 1980 to 2005 to identify patients who had received a diagnosis of both CLL and MM. A retrospective chart review was conducted to extract the following data: date of birth, sex, date of diagnosis of MM, date of diagnosis of CLL, MM pathology report, MM stage, recurrence of MM and metastasis of MM. The date of last follow up or date of death along with the cause of death if available, was also extracted. A stage by stage comparison was then conducted between the study group and the published results on melanoma survival rates by Balch et al. In addition, the available pathology slides of the MM were reviewed by a board certified dermatopathologist to confirm diagnosis, tumor stage, the presence or absence of tumor regression, and to evaluate for the presence and characteristics of an inflammatory infiltrate.

Summary: 70 patients (79% male) were identified with both MM and CLL. Of these 70 patients, 36 were diagnosed with CLL prior to being diagnosed with MM (median interval 4.4 years; median age at MM diagnosis 74 years), 33 were diagnosed with CLL after being diagnosed with MM (median interval 5.3 years; median age at MM diagnosis 63 years), and the timing was unknown for 1 patient. The MM AJCC clinical stage was available on 46 patients: 10 in-situ, 15 IA, 9 IB, 6 IIA, 4 IIB, and 2 IIIB. Breslow depth was available on 45 patients and included 10 in-situ, 16 <1mm, 8 1.01-2mm, 7 2.01-4mm and 4 >4 mm (median 0.8mm). Clark's level was also available on 45 patients, (note: not the same 45) with 10 at Clark's level I, 13 at level II, 8 at level III, 12 at level IV, and 2 at Clark's level V. The median Clark's level at presentation was Clark's level II. An inflammatory infiltrate was present in 18 (64.3%) of the 28 primary MM tumors reviewed pathologically. Of these 18 cases, 11 (61.1%) contained CLL cells within the inflammatory infiltrate, confirmed by CD3, 5 and 20 immunohistochemical staining. There were 12 documented metastases, one of which (1.4%) occurred in the setting of a previously diagnosed thin melanoma (< 1.00mm Breslow depth). Of the 8 documented recurrences, 4 occurred in patients with unknown Breslow depths, 1 in a patient with an in-situ primary lesion, 1 in a patient with a Breslow depth between 2.01-4mm, and 2 in patients with a Breslow depth of > 4mm. At last follow-up, 33 were deceased including 9 due to MM. Among the 37 alive at last follow-up, the median duration of follow-up was 4 years. The recurrence-free survival at 2, 5, and 10 years was 93.4%, 89.1%, and 83.8%, respectively.

The metastasis-free survival at 2, 5, and 10 years was 92.0%, 86.1%, and 80.9%, respectively. The MM disease-free specific survival was 95.1%, 87.3%, and 80.9% at 2, 5, and 10 years, and the overall survival was 91.8%, 78.5%, and 54.8%, at 2, 5, and 10 years respectively. When looking at survival by stage, the MM disease-specific survival at 5-years was 100% for stage IA, 88.9% for stage IB, and 100% for stage IIA. These rates were comparable to those of a previously published group of patients (information published by Balch et al.) with 5-year disease-free specific survival estimates of 95%, 90%, and 79%, respectively.

Conclusions: This retrospective study does not confirm that CLL influences the outcomes of MM in terms of recurrence rate, metastatic rate, and mortality. Patients with MM and concomitant CLL were not found to have worse survival rates when comparative analysis was conducted among patients with stage IA, IB, and IIA. The limitations of this study include its retrospective nature and small numbers of patients studied. Further research and prospective study of a large cohort of patients is needed to further clarify the effects of CLL on the outcome of concomitant MM.

LATE-BREAKING
4:56 PM-5:04 PM

PRESENTER: Ikue Shimizu, BA

TITLE: Peri-Operative Continuation of Multiple Oral Anti-Coagulant and Anti-Platelet Agents Increases the Risk of Post-Operative Hemorrhage in Dermatologic Surgery

AUTHORS: Ikue Shimizu, BA; Raymond G. Dufresne, MD; Nathaniel Jellinek, MD; Tianyu Li, MS; Karthik Devarajan, PhD; Clifford Perlis, MD

Purpose: Oral anti-coagulant and anti-platelet agents are frequently used for prevention of acute thrombotic events. Multi-agent therapy further reduces the risk of an adverse thrombotic event in selected high-risk patient populations compared to single agent therapy. Moreover, patients may take herbal supplements that act as anti-coagulants. Studies in dermatologic surgery suggest that withholding aspirin or warfarin peri-operatively appears to increase the risk of a thrombotic event without significantly reducing the risk of bleeding complications. These studies have not addressed, however, the question of whether multi-agent therapy influences the risk of post-operative bleeding in dermatologic surgery. This study aimed to investigate bleeding complications when multi-agent therapy is continued peri-operatively.

Design: This was a retrospective chart review study approved by the Lifespan Institutional Review Board. All patients who underwent Mohs surgery and post-operative care at University Dermatology from June 1, 2005 to June 1, 2006 were included. Charts were reviewed for age, pre-operative and post-operative blood pressure, alcohol intake, anticoagulant use, cancer type, location of tumor, tumor size, repair type, and presence or absence of bleeding complications. Bleeding complications were defined as hematoma; excessive bleeding requiring surgical intervention; or hemorrhage associated with flap necrosis, graft necrosis, or dehiscence. Agents studied included: aspirin, warfarin, clopidogrel, heparin, combined aspirin/dipyramidole; and the supplements vitamin E, fish oil, and gingko. A univariate analysis of influence on bleeding complications was run for the variables involving age, blood pressure, alcohol use, tumor type and size, and repair type. Wilcoxon test was used for continuous variables, and Fisher's exact test for categorical variables. In addition, a Fisher's exact test was performed to compare the presence or absence of post-operative bleeding in patients on more than one agent at the time of surgery versus those who were on one or none.

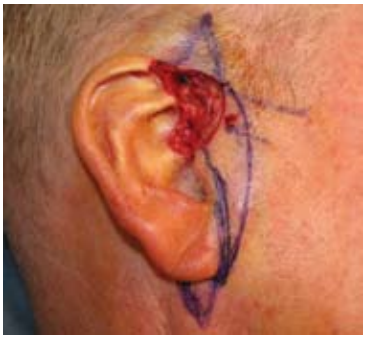
Summary: A total of 760 patients were included in the final analysis. Patients who underwent repair and follow-up care by plastic surgeons or about whom data were missing were excluded from analysis. The median age was 73 years. The percent of patients taking no agents at the time of surgery was 62.5%, one agent was 29.9%, and two or more agents 7.6%. The most commonly used agent was aspirin, representing 28% of all patients. When more than one agent was being taken at the time of surgery, the most commonly used combination was aspirin and warfarin (3.2%). Four patients experienced post-operative bleeding complications. Three of them took two or more agents at the time of surgery. Univariate analysis demonstrated that those patients with bleeding complications were more likely to be older (79- vs. 73-years-old), receive a graft for repair ($p=0.0055$), and larger post-operative tumor size (4.2 vs. 2.2 cm2). In addition, patients who took two or more agents at the time of surgery were more likely to bleed than those who took no or only one agent ($p=0.0016$; OR=38.24).

Conclusions: In contrast to studies of single-agent anti-coagulation and anti-platelet therapy, this data, gleaned from a retrospective chart review, suggests that patients on two or more agents at the time of dermatologic surgery and repair may have an increased risk of post-operative bleeding complications. Despite this obvious conclusion, these results must be considered tentative due to study limitations. The study is retrospective in nature, limited to one site and two surgeons, and reports only four bleeding events. Future research should include more patients from multiple sites studied in a prospective manner. A larger study population should also allow researchers to better assess the impact of individual anti-coagulant and anti-platelet agents. An even more relevant question for the future will be how these findings should influence patient management. The likelihood of a thrombotic event with severe morbidity and mortality must be weighed against the likelihood and severity of a post-operative hemorrhagic complication.

Friday, May 4, 2007 - MG210 Abstract Session

9:00 AM-9:08 AM

PRESENTER: Todd E. Holmes, MD
TITLE: Island Pedicle Flaps Twisted and Transposed
AUTHORS: Glenn Goldman, MD; Todd E. Holmes, MD
Purpose: Standard island pedicle flaps are restricted in their motion by deep or lateral restraint. This limits the distance they can advance. Transposition flaps are limited in their rotation by a combination of deep and surface restraint at their bases. By elevating an island and transposing the tip while gently advancing the base, a twisted and transposed island pedicle flap can recruit tissue laxity from a great distance, allowing for closure of challenging operative wounds.
Design: This was a retrospective study of cases from the practice of a single academic Mohs surgeon over ten years. The index case was a nasal repair that was started as a linear repair with a burrow's graft. In harvesting the 'graft' it was apparent that leaving a small deep attachment and twisting the 'flap' as an island would allow for repair of the distal wound. Since then the twisted and transposed island pedicle flap was used to repair defects of the glabella, the helical root, the nasal dorsum, the apical triangle of the lip, and the mental protuberance of the chin. The transposed island flap is designed as an elongate island and all lateral attachments are freed. The trailing 3/4 of the flap is then elevated, leaving only a proximal deep or deep and lateral pedicle in place. The pointed tip of the island is then twisted and transposed 90 to 180 degrees, allowing for closure.
Summary: In all cases a satisfactory result was achieved. There were no cases of necrosis nor infection.
Conclusions: By adding a twist to the island pedicle flap the island is able to reach farther than by advancement alone. Similarly, by severing the dermal and epidermal attachment of a transposition, greater motion is enabled and a dog ear is avoided. In select situations the twisted and transposed island pedicle flap allows for the aesthetic repair of challenging facial operative wounds.



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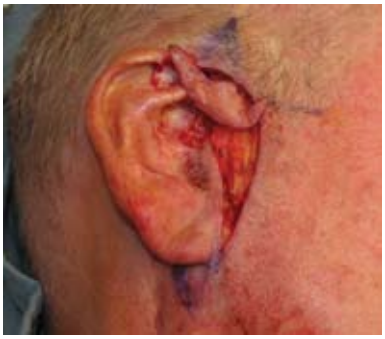

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9:08 AM-9:16 AM

PRESENTER: Matthew Halpern, M.D.
TITLE: Elective Lymph Node Evaluation in Patients with High Risk Squamous Cell Carcinomas: A Review of the Current Literature
AUTHORS: Matthew Halpern, M.D.; Desiree Ratner, M.D.
Purpose: The majority of patients with cutaneous squamous cell carcinoma are at low risk for regional or distant metastatic spread (1-12.5%). Once metastatic spread has occurred, patient survival is significantly reduced. Certain risk factors, including large tumor size, depth of invasion, histologic features, site, recurrence, immunosuppression and etiology, have been found to place patients at higher risk for aggressive tumor behavior, with rates of regional or distant metastasis that range from 11-43%. We sought to review and summarize the literature regarding options for lymph node evaluation and management in patients with high risk squamous cell carinoma without clinical evidence of lymph node involvement.
Design: MEDLINE and Pubmed searches were performed to identify studies quantifying the effectiveness of lymph node evaluation, including sentinel lymph node biopsy (SLNB), elective lymph node dissection (ELND), and radiographic imaging, for cutaneous squamous cell carcinoma in patients at high risk for regional or distant metastases.
Summary: Nine retrospective analyses of patients with high risk squamous cell carcinomas recommended ELND in selected patients on the basis of significantly elevated rates of metastasis or ineffective clinical observation. Location on the lip, ear, and preauricular cheek, and aggressive histologic features including invasion greater than 4 mm, poor differentiation, invasion of cartilage and desmoplastic differentiation were all predictive of local or distant metastasis. Four prospective studies were identified in which SLNB was performed to detect subclinical lymph node involvement in patients with high risk squamous cell carcinomas. One study determined that this technique had a sensitivity of 88% and a negative predictive value of 0.94

for assessing risk of local and distant metastases. When FDG PET scanning was used to evaluate the presence of subclinical metastasis in patients with high risk squamous cell carcinomas, 25% of patients had regional lymph node involvement and 8.3% had distant metastasis confirmed by surgical resection.
Conclusions: Currently there are no randomized controlled prospective studies that demonstrate survival benefit from aggressive lymph node evaluation for patients with high risk squamous cell carcinomas. The recommendations by several authors to perform elective lymph node dissections are based on high rates of metastasis and the ineffectiveness of close clinical observation in selected high risk tumors. SLNB and FDG PET scans are promising technologies that may enable early detection of subclinical metastases, but additional studies to fully evaluate these techniques are necessary. At this time, dermatologists must manage patients with high risk squamous cell carcinomas on a case by case basis. Patients with multiple risk factors for metastasis should be considered for elective lymph node evaluation in conjunction with head and neck surgery, surgical oncology, and radiology.

9:16 AM-9:24 AM

PRESENTER: Kavita Mariwalla, MD
TITLE: Mohs Surgery Histopathology Concordance
AUTHORS: Kavita Mariwalla, MD; David J. Leffell, MD
Purpose: The accuracy of the Mohs surgeon to interpret frozen sections is an essential element of the Mohs Micrographic Surgery (MMS) procedure. Little data exists regarding the slide interpretation concordance rates between dermatopathologists and Mohs surgeons.
Design: We performed a retrospective study of 1,156 slides submitted in an ongoing basis over a 10 year period as part of a pre-existing randomized, blinded, quality assurance protocol in the Yale Dermatologic Surgery Unit. Slides were read by one of five dermatopathologists and represent an accumulated case load from three different MMS surgeons and five MMS fellows; agreement or disagreement was recorded in a binary system as “tumor” or “no tumor”.
Summary: Of the BCC, 68 were recurrent, 12 were morpheaform and 10 exhibited features of SCC. Of the SCC, 4 were keratoacanthomas and 17 were recurrent. Of the 1,156 slides analyzed by both dermatopathologists and Mohs surgeons, 33 slides (2.9%) were initially read disparately. After further review and analysis of the nature of the disagreements, the true concordance rate was determined to be 99.7% (n=1,153). The majority of disputed slides resulted from dermatopathologists’ evaluation of actinic damage or in situ malignancy at the Mohs margins of invasive malignancy. Specifically, 23 of 33 slides (2.0% of total slides) were diagnosed as actinic keratosis (AK) or SCCIS and 7 (0.6% of total slides) contained foci of superficial basal cell carcinomas. At the time of the Mohs procedure itself, documentation revealed that the Mohs surgeons recognized the superficial keratinocytic atypia or malignancy and treated appropriately with topical chemotherapeutic agents or with close clinical follow-up. Of the three cases (0.3% of total slides) where discordance occurred (one morpheaform BCC, one superficial multifocal BCC and one infiltrative BCC), no adverse patient outcomes accrued.
Conclusions: We conclude that Mohs surgeons and dermatopathologists concur on interpretation of Mohs sections and that discordance arises most often in the interpretation interface of AK and SCCIS.

9:24 AM-9:32 AM

PRESENTER: John A. Zitelli, MD
TITLE: Sentinel Lymph Node Biopsy: Another View
AUTHORS: John A. Zitelli, MD
Purpose: This presentation will review the final data of the Multicenter Selective Lymphadenectomey Trial (MSLT), and present an alternative interpretation of the data compared to the original presentation of the investigators.
Design: The final results of the MSLT are unpublished, but availabe for public use. Although the investigators have presented their interpretation of the data in a non-peer reviewed fashion through lectures and slide shows, this analysis of the same data comes to significantly different conclusions for the secondary aims of the study.
Summary: The primary aim of the MSLT study has shown no survival benefit to sentinel lymph node biopsy followed by complete node dissection for positive node biopsy. The data also shows that for the secondary aims of the study that 1) complete node dissection for positive sentinel nodes does not imporve survival compared to complete node dissection for palpable nodes, 2)complete node dissection for positive sentinel nodes does not improve disease free survival, and 3)sentinel lymph node status has very little prognostic value compared to Breslow’s thickness.
Conclusions: There is no controversy that sentinel lymph node biopsy offers not survival advantage for patients with melanoma. However the data of the MSLT study is now available for review and does not support the original investigators’ opinion about their secondary aims. The alternate interpretation of the secondary aims, using their data, is presented.

9:32 AM-9:40 AM

PRESENTER: Arash Kimyai-Asadi, M.D.
TITLE: Alar Rotation Flap for Repair of Nasal Alar Defects
AUTHORS: Arash Kimyai-Asadi, M.D.
Purpose: Significant defects of the nasal ala are typically repaired using skin grafts or by flaps taken from other cosmetic subunits of the nose (e.g. nasal sidewall) or the cheek. These repairs typically result in alterations to the texture or symmetry of the nasal ala. The purpose of this study is to describe my experience with the alar rotation flap to repair defects of the medial and central nasal ala.
Design: 30 patients with nasal alar defects who underwent this repair were included in the study. An incision is made in the alar crease from the superior edge of the defect laterally to the alar-facial sulcus or the nasal sill. The skin is undermined in a superficial subcutaneous plane and is rotated onto the defect. A dogear is removed inferolaterally to prevent a standing cone on the alar rim. Sutures are removed in one week.
Summary: The average defect repaired using this flap was 1.0 x 0.8 cm. Necrosis of the flap was not seen in any patient. No patient needed any surgical revision of the flap. Notable distortion of the alar rim was not seen in any patient. Cosmetic outcomes were excellent and scars were typically impossible to detect in patients seen several months postoperatively.
Conclusions: The alar rotation flap provides an optimal first-line repair choice for defects of the central and medial nasal ala. It has clear advantages over skin grafts, bilobed flaps and cheek-based advancement, transposition and interpolation flaps.

9:40 AM-9:48 AM

PRESENTER: Brad Kovach, M.D.
TITLE: Use of Immunostains in the Measurement of Breslow Depths of Malignant Melanoma
AUTHORS: Brad Kovach, M.D.; Frank Q. Zhan, M.D.; Alan S. Boyd, MD; Thomas Stasko, MD
Purpose: This study sought to determine if the use of immunohistochemical stains, specifically S-100 and Mart-1 immunostains, allows detection of deeper foci of invasion of cutaneous melanoma than appreciated on hematoxylin and eosin (H&E) stained sections.
Design: Approval for this study was obtained through the Vanderbilt University Institutional Review Board. Paraffin-embedded tissue blocks from 16 cutaneous melanomas were obtained. Three serial histologic sections were obtained from each tissue block and stained with H&E, S-100 immunostain, and Mart-1 immunostain. The 48 slides thus obtained from the 16 melanoma tissue blocks were blinded and randomly assigned a number, 1 through 48. A board-certified dermatopathologist then measured Breslow depths for each of the 48 slides. Differences between Breslow depths recorded with H&E and the corresponding depths measured using immunostains were then compared using the paired 2-tailed student t-test.
Summary: Breslow depths recorded for each of the 16 cases using H&E, Mart-1 immunostain, and S-100 immunostain were compared. When the Breslow depths measured via H&E were compared to the greatest depth measured with either of the three stains, there was a statistically-significant difference ($p=0.01$), with deeper foci of invasion appreciated with the addition of the two immunostains when compared to use of H&E alone. Although there was a strong trend toward greater depths of invasion detected with S-100 or Mart-1 immunostains individually when compared to use of H&E alone, these differences did not reach statistical significance ($p=0.16$ and $p=0.86$, respectively). There was also no statistically significant difference in depths measured with S-100 immunostain when compared to those recorded with Mart-1 immunostain ($p=0.56$).
Conclusions: In this small randomized blinded pilot study, the addition of a panel of S-100 and Mart-1 immunostains allowed the identification of significantly deeper foci of invasion of malignant melanoma when compared to use of H&E-stained sections alone. Although there were trends towards greater depths being detected with each immunostain individually when compared to use of H&E, they did not reach statistical significance. This could potentially be due to the small sample size. Our results suggest that the addition of a panel of S-100 and Mart-1 immunostains to the standard use of H&E-stained sections increases the sensitivity of detecting deeper foci of invasion of cutaneous melanoma. Identification of such deeper foci could influence staging, thereby providing additional prognostic information and altering subsequent evaluation and therapeutic strategies. When considering the costs of melanoma staging workups and treatment, as well as the potential for poor clinical outcomes, the addition of these two immunostains to the histopathologic examination of melanoma specimens is reasonable. The results of this small pilot study should be confirmed with larger studies.

9:48 AM-9:56 AM

PRESENTER: Matthew Halpern, M.D.
TITLE: The Galeal Hinge Flap: A Useful Tool for the Immediate Repair of Scalp Defects Extending to Bone
AUTHORS: Matthew Halpern, M.D.
Purpose: Traditional approaches to the repair of large scalp defects extending to bone include healing by secondary intention, delayed full thickness skin grafting, split thickness skin grafting over burred bone, and large rotation or transposition flaps. Full

thickness skin grafting directly over bone is not a viable option due to the avascular nature of bony tissue. We describe a novel option for the immediate repair of scalp defects extending to bone utilizing the adjacent galea aponeurotica.
Design: We describe the use of a galeal hinge flap, in which the galea adjacent to a surgical defect is incised, transposed, and sutured over an area of exposed bone prior to placement of a skin graft.
Summary: Galeal hinge flaps recreate the vascular bed necessary for the survival of full thickness or split thickness skin grafts, which would likely necrose if placed directly on exposed bone.
Conclusions: Galeal hinge flaps provide a technically simple and reliable means of recreating the vascular bed required for placement of a full or split thickness skin graft. These flaps serve as a useful adjunct in reconstructing scalp defects extending to bone, allowing repair of such defects to be successfully accomplished in a single operative session.

9:56 AM-10:04 AM

PRESENTER: Lisa B. Campbell, MD
TITLE: Transposition Island Pedicle Flaps for Nasal Sidewall, Root and Combination Defects
AUTHORS: Lisa B. Campbell, MD; Michael L. Ramsey, MD
Purpose: Island pedicle flaps fulfill a unique role in dermatologic surgery defect repair. In many cases they offer increased mobility and vascular supply compared to traditional transposition and advancement flaps. Multiple variations have been published and this presentation verbally and graphically describes a series of the transposition island pedicle flap combined with rotation on the pedidicle applied to nasal sidewall, root and combination defects.
Design: Six cases with defects ranging in diameter from 1.0-2.6 cm illustrate this variation on the traditional island pedicle flap. In order to maximize cosmesis, the donor tissue needed to be oriented obliquely with ensuing transposition and rotation on the pedicle. In each of the cases, suture lines were ideally placed in relaxed skin tension lines or along cosmetic subunit junctions, disguising both the secondary closure and island. Tension on surrounding tissue was also minimized as pedicles were designed individually to maximize mobility for each case.
Summary: Applications of the island pedicle flap abound offering flexibility and consistent results.
Conclusions: Visualizing the variety of possibilities with this flap as illustrated in this case series will add to the dermasurgeon's armamentarium of repairs.

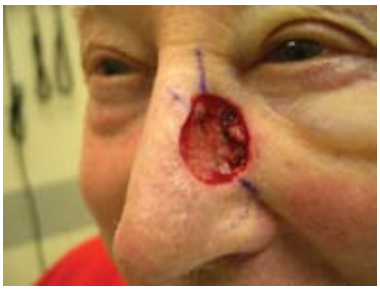


IMAGE:295038_A.jpg

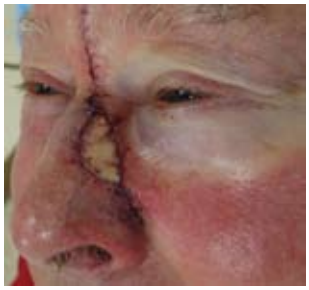


IMAGE:295038_B.jpg

LATE-BREAKING
10:04 AM-10:12 AM

PRESENTER: Kevan G. Lewis, MD, MS
TITLE: Technical Innovation in Tissue Mounting During Mohs Surgery
AUTHORS: Kevan G. Lewis, MD, MS; Raymond G. Dufresne Jr, MD; Nathaniel J. Jellinek, MD
Purpose: The quality of frozen Mohs sections is determined by a confluence of technical factors. Accuracy, reliability and efficiency in the laboratory setting are critical. Tissue mounting and processing techniques vary but the goal is always the same: 100% margin control through direct visual inspection of the epidermis, dermis and deeper structures.(1-3) The quality of slide preparation is dependent on the experience of the technician and technical difficulty of the procedure. Numerous techniques and devices for mounting tissue have been reported.(4,5) The purpose of this study is to describe a mounting technique that produces accurate and reliable frozen sections in a time efficient manner and minimizes operator-dependency. Preliminary experience using a prototype nested aluminum jig has been described previously.(6) We report on advancements in the technique and long-term experience incorporating it into a busy academic Mohs surgery practice.
Design: Following routine excision during Mohs surgery, the cut surgical margin of the fresh tissue is placed (epidermis facing up) onto a frozen (-20°C) polished disc that is permanently mounted to a handheld aluminum block. The tissue is rolled over using the technician's hands or a forceps to create the optimal oblique plane of section and covered with OCT compound. Embedding medium is also applied to a frozen button (with concentric circular ridges) that rests in a mobile jig. The aluminum block is then inverted and nested with the mobile jig, leaving the tissue apposed with the button and embedded in medium.

When the OCT compound stabilizes, the button adheres to the aluminum block which is lifted from the jig. Lateral pressure dislodges the aluminum block leaving the embedded tissue mounted on the button ready for sectioning.

Summary: During the 20-year period from 1988 to 2007, over 20,000 cases of Mohs surgery have been performed utilizing this technique. Video segments and digital photographs illustrate the ease and simplicity of this procedure. This method for mounting Mohs excisions eliminates the need to adjust the cryostat yolk (chuck) in order to orient the plane of section perpendicularly to the microtome blade when facing the block. The extra step required by conventional methods of manually inverting the tissue in order to arrange the correct plane of section nearest the microtome is also omitted. Few passes of the microtome blade are necessary to obtain optimal sections. Optimal orientation of the block may reduce the number of sections requiring examination by the Mohs surgeon and may minimize the risk of missing tumor skip areas. Together these modifications improve the speed and reliability of processing by simplifying the procedure. Potential limitations of this technique include difficulty handling fragile tissue or thick, firm tissues. Because the excised tissue adheres instantly to the frozen block, correct placement of thin, flaccid tissue such as eyelid skin is more challenging. Application of cyanoacrylate glue can quickly fix this fragile tissue and facilitate subsequent mounting steps. (7) Mounting thicker, less compliant tissue in scar or heavy sebaceous skin may require relaxing incisions and demands appropriate beveling during excision Additionally, care must be taken in bi-sectioned or multi-sectioned Mohs excisions not to compress or roll down a non-marginal tissue edge which can create a false positive epidermal margin.

Conclusions: Results of this study demonstrate the utility of the modified aluminum jig technique for mounting tissue during Mohs surgery. This report of 20-years experience underscores the simplicity, accuracy and reproducibility of the procedure. Practice efficiency and patient care may be improved by incorporating this device into routine histologic processing during Mohs surgery. References 1. Davis DA et al. Preparation of frozen sections. Dermatol Surg. 2004 Dec;30(12 Pt 1):1479-85. 2. Hanke CW et al. Cryostat use and tissue processing in Mohs micrographic surgery. J Dermatol Surg Oncol. 1989 Jan;15(1):29-32. 3. Miller LJ et al. The preparation of frozen sections for micrographic surgery. A review of current methodology.J Dermatol Surg Oncol. 1993 Nov;19(11):1023-9. 4. Randle HW et al. Histologic preparation for Mohs micrographic surgery. The single section method. J Dermatol Surg Oncol. 1993 Jun;19(6):522-4. 5. Nouri K et al. The Miami Special: a simple tool for quality section mounting in Mohs surgery. J Drugs Dermatol. 2004 Mar-Apr;3(2):175-7. 6. Carter VH. A new method for preparing tissue blocks for cryostat sectioning. J Dermatol Surg Oncol. 1985 Jul;11 7):687-9. 7. Zeikus P. et al. Novel technique for use of cyanoacrylate in Mohs surgery. Dermatol Surg 2006;32(7):943-4.

Friday, May 4, 2007 - MG213 Abstract Session

3:15 PM-3:23 PM

PRESENTER: Murad Alam, MD

TITLE: Health-Related Quality of Life and Utilities in Patients with Chronic Nonmelanoma Skin Cancer: A Multispeciality Assessment

AUTHORS: Murad Alam, MD; Ray Hah, BA; Elizabeth Calhoun, PhD; John Y. Kim, MD MA; Simon Yoo, MD; Lucile White, MD

Purpose: There has been a recent interest in assessment of quality of life in patients with nonmelanoma skin cancer, and specialized measures have been developed. However, the quality of life burden of chronic, recurrent nonmelanoma skin cancer has not been specifically assessed via utility measures. Additionally, quality of life in nonmelanoma skin cancer has usually been measured by dermatologists, and very limited data are available on how quality of life may vary in patients treated by other specialists. The purpose of this study was to: (1) measure utilities in patients with nonmelanoma skin cancer presenting to physicians from multiple disciplines; and (2) attempt to better understand the cause of these preferences via an extensive questionnaire eliciting information about diagnosis and treatment history, psychometric parameters, and other preferences.

Design: One-on-one survey study of patients with biopsy-diagnosed nonmelanoma skin cancer presenting to dermatology, otolaryngology, or plastic surgery practices at an urban academic medical center. The survey elicited demographic information; social history; work history; general medical history; complete skin cancer history including dates of prior diagnoses and treatments, including the type of treatment and the specialty of the treating physician; information about depression, anxiety, and overall skin quality of life via the Beck Depression Inventory, the State-Trait Anxiety Inventory, and Skindex; and utilities via time-tradeoff analysis of 5 real and hypothetical health states.

Summary: 106 patients were asked to participate and 102 acceded, and completed all the sections, except for utilities. Complete utility information was elicited from 72 patients, with the remainder declining (6), being too tired (10; the utility questions were the last part of the survey); not understanding the questions sufficiently, as determined by themselves or the survey administrator (14). Utilities associated with hypothetical health states (A: development of first lesion; B: day of surgery; C: post-surgery; D: recovery; E: chronic state) were, respectively: 0.89 (A), 0.93 (B), 0.92 (C), 0.87 (D), 0.83 (E). Utilities were similar for patients who had experienced a hypothetical health condition and those who had not. Results did not vary by the specialty of the physician to whom patients presented

Conclusions: Health-related quality of life appears to be significantly negatively impacted in patients with nonmelanoma skin cancer, who exhibit utility values typically associated with serious medical disease. Utilities associated with the chronic, recurrent diathesis are particularly low, with patients willing to give up 1 full year of life in the disease state for only 10 months of life in perfect health. Further analysis is needed to isolate the specific underlying causes, so that targeted interventions may be provided to improve quality of life.

3:23 PM-3:31 PM

PRESENTER: Aradhna Saxena, M.D.

TITLE: Bilateral Upper Blepharoplasty For Full Thickness Skin Grafts: Synergy In the Repair of Eyelid Defects Following Mohs Surgery

AUTHORS: Aradhna Saxena, M.D.; Greg S. Morganroth, MD

Purpose: Lower eyelid and medial canthus defects following Mohs Micrographic Surgery (MMS) represent some of the most challenging defects for reconstruction because of the risk of ectropion, webbing, asymmetry, and scarring. The upper eyelid skin is the best match for a FTSG of a lower lid defect, however removal of upper eyelid skin may create asymmetry with resultant dissatisfaction with the cosmetic outcome. This study evaluates the effectiveness, safety, and patient satisfaction of combining bilateral upper blepharoplasty and the repair of medial eyelid defects immediately following MMS to achieve an ideal FTSG match and to provide an overall aesthetic improvement without requiring revision surgery.

Design: A series of 8 patients underwent Mohs Micrographic Surgery (MMS) of medial canthus/lower eyelid tumors followed by reconstruction with full thickness skin grafts harvested from upper eyelid skin removed during a bilateral upper lid blepharoplasty. The patient tolerance of the procedure, satisfaction of the reconstruction outcome, satisfaction of the blepharoplasty outcome, and complications were evaluated on the basis of retrospective chart review, investigator observation, digital images, and a patient questionnaire.

Summary: The 8 patients included 6 women and 2 men with an average age of 58.3 years. 7/8 patients had basal cell carcinomas and 1/8 had melanoma in situ. All defects were located in the medial canthus extending to the lower lid with an average size of 1.65cm. Patients were evaluated at an average of 119.4 days post-op. Two patients had mild graft edema that resolved with a single injection of kenalog. All patients were very satisfied to extremely satisfied with the cosmetic outcome of both procedures despite that fact that none of the patients considered cosmetic eyelid surgery prior to MMS and all patients decided to have the upper blepharoplasty on the day of surgery. The addition of the blepharoplasty did not increase downtime. All patients would recommend this combination to a friend and would repeat the procedure in the future.

Conclusions: Upper blepharoplasty is an excellent method to harvest upper eyelid FTSGs for the repair of eyelid defects following MMS. The procedure is well-tolerated, has high patient acceptance, is extremely safe, and does not increase recovery time. The synergy of combining the bilateral upper blepharoplasty with the eyelid defect repair eliminates concerns regarding asymmetry of the upper lids and increases overall patient satisfaction.

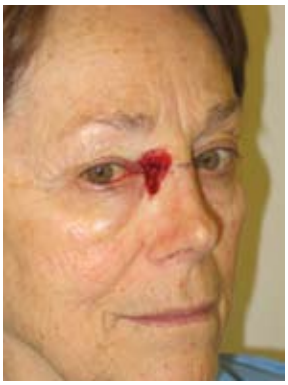


IMAGE:295131_A.jpg
Right medial canthus defect status post Mohs micrographic surgery for a basal cell carcinoma

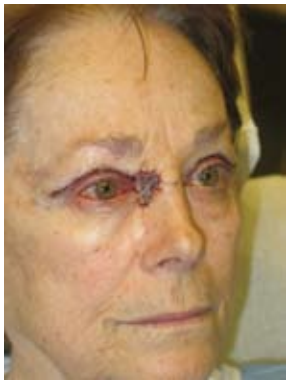


IMAGE:295131_B.jpg
Reconstuction of right medial canthus defect with a full thickness skin graft harvested from the ipsilateral upper eyelid as a blepharoplasty. Contralateral upper blepharoplasty performed during the same operative session.

3:31 PM-3:39 PM

PRESENTER: Arash Kimyai-Asadi, M.D.

TITLE: Efficacy of Excision of Well-Demarcated Primary Nodular Facial Basal Cell Carcinomas with 2-mm Surgical Margins

AUTHORS: Arash Kimyai-Asadi, M.D.; Leonard H. Goldberg, M.D.; Steven Q. Wang, M.D.; Daniel S. Behroozan, M.D.; S Ray Peterson, M.D.; Murad Alam, M.D.; Ming H. Jih, M.D., Ph.D.

Purpose: A 4 mm surgical margin of clinically normal skin is the current standard for elliptical excision of basal cell carcinomas. However, a 4 mm surgical margin is often not optimal on the face due to cosmetic and functional concerns. As such, facial excisions of basal cell carcinomas are often performed with either narrower surgical margins or with the use of Mohs micrographic surgery. We designed a study to test whether small, well-demarcated nodular basal cell carcinomas on the face

can be effectively treated using elliptical excision with 2 mm surgical margins.
Design: 300 primary, small (<1 cm), well-demarcated, nodular facial basal cell carcinomas were excised as an ellipse with 2 mm margins around the visible border of the tumor. Frozen sections were prepared and examined microscopically to provide complete histologic margin control.
Summary: 300 facial basal cell carcinomas were included in the study. On average, the tumors measured 0.6 x 0.5 cm. 52 (17.3%) had positive margins, requiring additional excision.
Conclusions: Narrow margins (2 mm) are inadequate for the excision of small, well-demarcated primary nodular basal cell carcinomas of the face. In order to avoid repetitive surgeries and the risk of recurrence in anatomically sensitive areas, these tumors should be treated with standard wide margins (i.e. 4 mm), or undergo Mohs micrographic surgery.

3:39 PM-3:47 PM

PRESENTER: Arianne E. Chavez-Frazier, M.D.
TITLE: The Use of High Definition Video Clips for Informed Consent and Wound Care in the Mohs Surgery Unit
AUTHORS: Arianne E. Chavez-Frazier, M.D.; Tri Nguyen, M.D.; Michael Migden, M.D.
Purpose: At the University of Texas Mohs Surgery Center, we are currently employing high definition video clips to assist with daily tasks of our Mohs surgeons and the nursing staff and to keep patients well informed. The purpose of this is to allow the patient to be well informed of all of the details on the informed consent form before they sign, and to instruct patients on the proper care of their surgical wound after they leave the Mohs Surgery Center. This allows the Mohs surgeon and the nursing staff to attend to other required tasks within the Mohs Surgery Center while still informing the patient of necessary information; essentially completing two tasks at once.
Design: Using high definition recording equipment, we recorded real time high definition video clips detailing the risks/benefits of Mohs surgery and reviewing thoroughly the informed consent form (recorded by surgeon) as well as detailed instructions for wound care (recorded by RN). Once recorded, the high definition video clips were stored on a central server in the Texas medical Center approximately one mile from the Mohs Surgery Unit. The video clips can quickly and easily be accessed from this central server from any computer in the Mohs surgery Unit. All rooms are currently equipped with a computer and the patient is allowed to watch the videos at times when they would otherwise be waiting. To quantify the benefits of using the high definition video clips in a Mohs surgery practice we are currently comparing the amount of time it takes our Mohs surgeons to verbally review the informed consent form with the patient versus letting the patient watch the video and answering any specific patient questions afterwards. The time saved or lost on average will be evaluated using a cost-analysis method to evaluate the productivity of the video clips for an average Mohs surgery practice. In addition, we will conduct a patient questionnaire survey to evaluate the patient satisfaction regarding the use of high definition video clips.
Summary: Parts of the high definition video clips will be able to be viewed at the meeting and the results of the cost-analysis and patient satisfaction survey will be presented. We have found the use of high definition video clips helps our Mohs Surgery Center run more effectively and allows our patients to be better informed regarding the risks/benefits of Mohs surgery, as well as their own wound care once they leave the Mohs surgery unit.
Conclusions: The use of high definition video clips in the Mohs Surgery Center enables our patients to be well informed of the risks/benefits of Mohs surgery as well as the required wound care following surgery. In addition it allows our Mohs surgeons and nursing staff to accomplish the same goals of informing patients and providing patient education, while having more time during the day to complete other required tasks in the Mohs surgery Center.

3:47 PM-3:55 PM

PRESENTER: Teris M. Chen, MD
TITLE: Superficial Musculoaponeurotic System (SMAS) Plication in Facial Reconstructive Surgery
AUTHORS: Rungsima Wanitphakdeedecha, MD; Teris M. Chen, MD; Michael R. Migden, MD; Tri H. Nguyen, MD
Purpose: The SMAS envelops the muscles of facial expression. This fascia may be plicated in facial rejuvenation of the aging face or facial palsy. The authors discuss SMAS plication in the setting of facial reconstructive surgery to reduce both wound tension and defect size.
Design: Hydrodisect with local anesthesia to facilitate undermining of the surgical wound above the SMAS. Place either non-absorbable or absorbable sutures into the SMAS at the most inferior and superior aspects of the undermined surgical defect. Instruct patients to avoid forcible movement of the skin, which remains tight for as many as 3 weeks. The vector of lift with the SMAS plication is in a line that is perpendicular to the nasolabial fold, from the lateral nasal ala to the lateral canthus of the eye. To maintain the lift, it may be necessary to anchor the tissue to periosteum or the deep temporal fascia.
Summary: Figure 1 Pre-SMAS plication Figure 2 Post-SMAS plication
Conclusions: Plication of the SMAS before suturing overlying tissue provides an excellent functional and cosmetic result. By reducing tension and wound size, repairs are often less complex than anticipated, in addition to providing a unilateral rejuvenating effect.

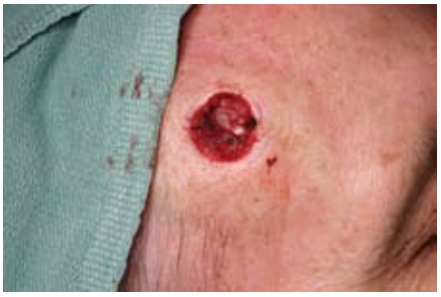


IMAGE:294856_A.jpg
Figure 1 Pre-SMAS plication

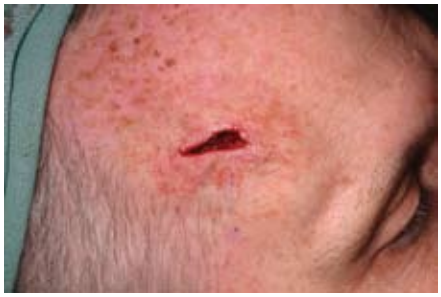


IMAGE:294856_B.jpg
Figure 2 Post-SMAS plication

3:55 PM-4:03 PM

PRESENTER: Robert J. Willard, M.D.
TITLE: Nasalis Myocutaneous Island Pedicle Flap with Partial Alar Second Intention Healing for Repair of Lateral Nasal Sidewall and Partial Alar Defects
AUTHORS: Robert J. Willard, M.D.; Raymond G. Dufresne, MD; Nathaniel Jellinek, MD
Purpose: Nasal sidewall defects with or without alar involvement present unique reconstructive challenges. The sidewall is bordered by the cheek laterally, dorsum medially, and ala inferiorly. The borders between these units provide important anatomic and cosmetic landmarks. When possible, optimal reconstruction stays within one cosmetic subunit. The purpose of this study is to describe a novel repair technique for reconstruction of nasal sidewall and partial alar defects following Mohs micrographic surgery.
Design: 8 patients, studied retrospectively, presented for Mohs surgery and reconstruction for basal cell carcinoma of the nose. These defects involved the sidewall with variable involvement of the alar groove and ala. All patients were repaired using a superiorly-based myocutaneous island pedicle flap (IPF), tacked inferiorly at the alar groove, with secondary intention healing of the alar defect, and guiding sutures placed at the time of reconstruction to prevent alar lift. The patients were followed for 3-12 months postoperatively, with long-term photographs taken to compare to baseline. Results: All patients healed well without complication. There was no alar asymmetry or elevation in any patients. No patient required postoperative scar revision.
Summary: IPFs are advancement flaps with a deeply-based pedicle that may be subcutaneous or myocutaneous. Muscle-based flaps, which offer increased vascular supply compared to subcutaneous flaps, are particularly important for repair of defects on the nose. The nasalis myocutaneous flap is dependent on the lateral nasal branch of the angular artery. Reconstruction of the nasal tip and sidewall using a nasalis muscle-based IPF with bilevel undermining has been described previously. Repair of the nasal ala using single or bi-pedicled nasalis IPFs has also been reported. In these cases, defects were limited to a single cosmetic unit. Advancement flaps oriented perpendicular to free margins, including the ala, risk postoperative pulling on the free margin, potentially resulting in alar notching. We describe a technique that involves advancing an IPF inferiorly along the nasal sidewall and limiting its movement to the sidewall subunit. The leading edge of the flap is aligned with the alar groove, recreating that anatomic boundary. The medial and lateral sides of the leading edge of the flap are tacked with absorbable suspension sutures which serve to obviate any vertical tension vector that might result in notching of the alar rim. The remaining alar defect is left to heal by second intention and is either packed with a bolster dressing or covered with a guiding suture parallel to the alar rim. This last step further prevents the possibility of alar lift associated with secondary intention wound healing adjacent to a free margin.
Conclusions: Reconstruction of the nasal sidewall and portions of the alar groove and ala through the use of a superiorly based myocutaneous IPF and secondary intention alar healing provide excellent cosmetic and functional results, without anatomic distortion. Lateral tacking of the leading flap edge, combined with guiding sutures placed over the alar portion of the defect prevent alar lift with the secondary intention wound healing.

4:03 PM-4:11 PM

PRESENTER: Arash Kimyai-Asadi, M.D.
TITLE: Cellular Dermatofibroma: Benign or Malignant?
AUTHORS: Arash Kimyai-Asadi, M.D.; Ming H. Jih, M.D., Ph.D.; Leonard H. Goldberg, M.D.
Purpose: Cellular dermatofibroma ("benign cellular fibrous histiocytoma") is considered to be a variant of dermatofibroma that is characterized by large, deeply-penetrating lesions with a high propensity for recurrence and uncommon systemic metastases. Variants of cellular dermatofibroma include atypical and indeterminate fibrous histiocytomas, which demonstrate cellular atypia and overlap features with dermatofibrosarcoma, respectively.
Design: We describe 5 patients with cellular dermatofibroma. We also review the literature with particular attention to the biologic behavior of this tumor.

Summary: Tumors are typically large (> 2 cm) with a history of recurrence after previous treatment. Histologically, there is infiltration into the subcutaneous fat, in 2 cases requiring excision to or including the deep fascia. Factor XIIIa staining is diffuse, but focal staining with CD34 is often present. None of the tumors recurred following Mohs surgery. The literature has several examples of metastasis from these tumors.
Conclusions: Cellular dermatofibromas have 4 features that together prove their malignant nature: (1) the large size tumors can attain; (2) the potential for significant deep subcutaneous infiltration and invasion; (3) the high rate of local recurrence; and (4) the occurrence of distant metastases. As such, we propose that cellular, atypical and indeterminate dermatofibromas be thought of as malignant in terms of their biologic behavior. Mohs micrographic surgery is the treatment of choice for these tumors, particularly when they are clinically large or recurrent.

4:11 PM-4:19 PM

PRESENTER: Ravi S. Krishnan, M.D.
TITLE: A Technique for Fat Conservation when Releasing Interpolation Flap Pedicles
AUTHORS: Ravi S. Krishnan, M.D.; Heidi B. Donnelly, M.D.
Purpose: Complex interpolation flaps, such as the paramedian forehead flap and the melolabial interpolation flap, are commonly used in the reconstruction of large defects. When performing such flaps, large amounts of tissue must be taken from the donor sites in order to have an adequate amount of tissue for reconstruction. This often results in some degree of deformity in the donor site. It behooves the Mohs surgeon to minimize the extent of this deformity so that optimal cosmesis can be achieved. One of the most common ways in which the donor site can be deformed is by the development of a depression or concavity that results from the loss of the adipose tissue which was used in the interpolation flap and its pedicle. We describe a technique for pedicle inset that allows most of the adipose tissue in the flap's pedicle, which is traditionally discarded, to be reincorporated into the donor site. This tecnique minimizes any postoperative donor site concavities which may arise.
Design: This is a pilot study involving 10 patients with nasal defects resulting from Mohs surgical excision of skin cancers. Five patients who underwent paramedian forehead flap reconstructions and 5 patients who underwent melolabial interpolation flap reconstructions had this technique performed at the time of pedicle release. All patients were followed for a minimum of six months, and their results were compared with historical controls with similar defects and reconstructions who did not have this technique performed at the time of pedicle takedown.
Summary: This technique is fairly simple to execute and allows restoration of some of the volume which is lost from the donor site. All patients had excellent cosmetic outcomes and demonstrated, at worst, only minor concavities at follow-up.
Conclusions: This fat conservation is a relatively simple technique that all surgeons who perform interpolation flaps should consider using. The technique is easily performed at the time of pedicle inset will result in a significant reduction in donor site depressions or concavities.

4:19 PM-4:27 PM

PRESENTER: Jeff Petersen, MD
TITLE: Modified Bernard-Burow's Reconstruction for Near Complete Lower Lip Resection Following Mohs Surgery
AUTHORS: Jeff Petersen, MD
Purpose: Demonstrate a modified Bernard-Burow's reconstruction for a near complete lower lip resection with maintenance of muscular innervation, mucosal reconstruction, and no loss of lower lip dam function.
Design: Bernard-Burow's reconstruction may be required when complete or near complete loss of the lower lip (greater than two-thirds). With modification of the originally described procedure, the expected results from that procedure; insensate lower lip, loss of mobility, drooling, can be minimized. This requires attention to the undermining planes and the flap design. We will discuss these modifications and the designing of the flap to minimize these expected post surgical results.
Summary: When one is left with complete or near-complete loss of the lower lip. One should consider reconstruction using the modified Bernard-Burow's flap and understand the expected post surgical results.
Conclusions: The modified Bernard-Burow's flap can be used effectively in lower lip reconstruction and the expected post surgical results can be minimized.

4:27 PM-4:35 PM

PRESENTER: Neil J. Mortimer, MBChB
TITLE: Investigation of the Effectiveness of Anaesthesia of the Nasal Ala Provided by an Infraorbital Nerve Block
AUTHORS: Neil J. Mortimer, MBChB; Paul J. Salmon, MD; Michael J. Sladden, MBChB
Purpose: Dermatological surgical procedures involving the nasal alae are commonplace in clinical practice. Direct infiltration of local anaesthetic into the nasal ala is extremely uncomfortable. Nerve blocks are generally well tolerated. We sought to investigate the effectiveness of alar anaesthesia provided by an infraorbital nerve block. This was evaluated by means of a

prospective clinical study.
Design: 75 consecutive patients requiring dermatological surgical procedures involving the nasal ala (or other sites necessitating an infraorbital nerve block) were recruited. Following topical mucosal anaesthesia with benzocaine 20%, an infraorbital nerve block (1ml of 2% lidocaine without epinephrine) was administered via the intraoral route according to standard technique. After ten minutes, the effectiveness of anaesthesia was assessed by testing the perception of a sharp stimulus (30 G needle) tested at five standardised reference points on the nasal ala. If the ala was not completely anaesthetised, an external nasal nerve block (1ml of 2% lidocaine without epinephrine) was administered according to standard technique. Sensation of the nasal ala was again assessed after ten minutes by the method described above.
Summary: Complete anaesthesia of the nasal ala was achieved with an infraorbital nerve block in 67% (50/75) patients. Of the remaining 25 patients, the addition of an external nasal block achieved complete anaesthesia in 44% (11/25).
Conclusions: An infraorbital nerve block provides effective alar anaesthesia in the majority of patients. In those where it is ineffective for complete anaesthesia, an external nasal block is a useful adjunct. Use of an infraorbital nerve block (and external nasal nerve block if required) is recommended prior to direct infiltration of local anaesthetic into the nasal ala to reduce the discomfort associated with this.

LATE-BREAKING
4:35 PM-4:43 PM

PRESENTER: Steven Chow, MD
TITLE: Subcutaneous Pedicle Nasolabial Transposition Flap
AUTHORS: Steven Chow, MD; Peter K. Lee, MD, PhD
Purpose: The traditional design of a nasolabial transposition flap requires that the flap pedicle width have a 1:1 ratio with the diameter of the primary defect. Extensive undermining is needed to maximize the flap's ability to pivot around its axis. Tissue economy is also not optimized, and large secondary defects may be created. Pin-cushioning secondary to excess subcutaneous fat beneath the pedicle may also occur despite careful surgical technique. To address the issues of enhancing flap rotation, maximizing tissue conservation and minimizing pin-cushioning, a subcutaneous pedicle nasolabial transposition flap is proposed.
Design: After tumor clearance secondary to Mohs microsurgery, patients at the University of Minnesota Dermatologic Surgery Clinic underwent reconstruction using a subcutaneous pedicle nasolabial transposition flap. Rather than utilizing a traditional nasolabial transposition flap, with a cutaneous pedicle width equal to the diameter of the primary defect (Figure 1), the modified version incorporated a pedicle consisting of 1) full-thickness skin that is only one-half the diameter of the primary defect and 2) subcutaneous fat that is the other half of the pedicle (Figure 2). The flap was excised with the subcutaneous fat removed from the primary defect region to be incorporated as part of the flap pedicle. After flap transposition, the subcutaneous fat along the flap pedicle was positioned beneath the undermined region of the primary defect. Following flap closure, patients returned to clinic one week for suture removal and again at 6 weeks to assess appearance and function.
Summary: Nasolabial transposition flaps allow for excellent skin matching. Unfortunately, their utility can be limited due to pivotal restraint caused by the width of the pedicle. Tip necrosis may occur if the flap has an inadequate pedicle. The subcutaneous pedicle nasolabial transposition flap allows for greater movement of the flap pedicle due to its smaller width of full-thickness skin. Additionally, the rich vascular supply from the subcutaneous portion of the pedicle does not appear to compromise the integrity of the flap body or tip. An additional benefit of the subcutaneous pedicle nasolabial transposition flap is that of tissue economy at the secondary defect site. A pedicle whose width is one-half full thickness skin can result up to a 69% smaller secondary defect compared to that produced by a conventional flap. Redistribution of the subcutaneous fat along the undermined area surrounding the primary defect also reduces flap pin-cushioning.
Conclusions: A subcutaneous pedicle nasolabial transposition flap enhances pedicle rotation, tissue conservation and minimizes pin-cushioning compared to a conventional nasolabial transposition flap.Previously Presented : NoneSubmitted for Future Meeting: None

IMAGE:342571_A.jpg
Traditional nasolabial transposition flap with Burow's triangle

IMAGE:342571_B.jpg
Full thickness skin portion of the flap is one-half the diameter of the primary defect

LATE-BREAKING
4:43 PM-4:51 PM

PRESENTER: Raj Mallipeddi, MD, MRCP

TITLE: A Novel Two-Hour Method for Rapid Preparation of Permanent Paraffin Sections of Melanoma In Situ during Mohs Micrographic Surgery

AUTHORS: Raj Mallipeddi, MD, MRCP; Jeffrey Stark, BSc; Xian-Jin Xie, PhD; Mark Matthews, MD; R. Stan Taylor, MD

Purpose: Distinguishing sun induced melanocyte atypia from residual melanoma in situ (MIS) on paraffin histology can be extremely challenging. The challenge is greater for the Mohs surgeon when working with frozen sections. Immunostains such as MART-1 can assist but most agree paraffin sections represent the melanocyte histology 'gold standard'. Our study assesses an expedited method of providing rapid permanent paraffin sections to the Mohs surgeon when the Mohs technique is used for removing MIS.

Design: Using microwave tissue processing technology, we have developed a laboratory technique to produce good quality permanent paraffin sections within 2 hours. With IRB approval, 13 MIS debulk specimens were divided into 4 pieces with each piece processed 1 of 4 ways: 1. Our rapid microwaved paraffin technique with Hematoxylin and Eosin (H&E). 2. Standard non-microwave paraffin processing with H&E. 3. Frozen sections with H&E. 4. Frozen sections with MART-1 immunostaining. They were all compared in a blinded fashion by an experienced Mohs surgeon and dermatopathologist who assessed 3 criteria: 1) Ease of visualizing normal melanocytes. 2) Ease of visualizing abnormal melanocytes. 3) Overall ability to adequately visualize epidermal and dermal structures. Each investigator scored 3 for good, 2 for fair and 1 for poor on each of the 3 criteria.

Summary: A non-inferiority test showed that our microwave technique is at least as good as the standard paraffin processing for all 3 criteria. Furthermore, a non-parametric signed rank test indicated that there were no significant differences between the two paraffin techniques in all 3 criteria (P-value=0.29, 0.63, 0.75, respectively). A non-parametric signed rank test also showed that when compared with frozen H&E sections, our microwave technique was significantly better for all 3 criteria (P value=0.046, 0.004, 0.005, respectively) and when compared with frozen MART-1 sections, it was significantly better in the ability to visualize abnormal melanocytes (P value=0.03), but was found to be similar in the ability to visualize normal melanocytes (P value=1).

Conclusions: We document that the rapid microwave tissue processing technique is comparable to standard 24 hour paraffin section processing and advocate the use of this new rapid technique to produce permanent paraffin sections to assist in the treatment of MIS with Mohs surgery.

POSTER PRESENTATIONS
101

TITLE: The Experience of Perineural Skin Cancer at Saint Louis University Department of Dermatology

AUTHORS: Erin J. Allen, M.D.; Summer R. Youker, M.D.; M. Yadira Hurley, M.D.; Anne Thai, B.S.; Mark A. Varvares, M.D.; Scott W. Fosko, M.D.

Purpose: To identify the number of tumors with perineural extension and/or perineural inflammation seen at Saint Louis University Mohs Unit. Additionally, we aim to identify any predictor or prognostic information of this cohort of patients. Lastly, we will compare the treatment methods and adjunctive therapy in patients with perineural involvement.

Design: All tumors treated with Mohs Micrographic surgery in 2004 and 2005 were reviewed to identify if perineural involvement or inflammation was seen at the time of surgery as marked on the Mohs map. All cases in question were submitted for permanent histological examination. Special stains (S-100, cytokeratin) were used, as needed, on permanent slides for confirmation. Frozen slides were re-reviewed if there was any discrepancy between the permanent and frozen histological diagnosis. Charts on all patients in question were reviewed and recorded.

Summary: PN (perineural tumor invasion) was defined as the presence of tumor cells immediately peripheral to or involving the perineurium or cutaneous nerve. Close proximity or "near-by" was not included in our analysis. PNI (perineural inflammation) was defined as the presence of inflammatory cells immediately peripheral to or abutting the perineurium or cutaneous nerve. Two surgeons performed 2,191 Mohs cases from 2004-2005. 54 cases (2.5%) were identified due to histopathologic tumor patterns. The mean age was 72 and represented 36 men and 18 women. The most common locations were forehead 9 (25%), cheek 6 (17%), nose 6 (17%) and ear 5 (14%). PN was identified in 37 cases (1.7%). PNI or PN was identified in 45 cases (2.1%). PN or PNI was seen in 18 (1.1%) of basal cell cancers (BCC), 25 (4.7%) of squamous cell cancers, and 1 microcystic adenexal carcinoma. In some circumstances, the diagnosis changed between the frozen and the permanent slide interpretation. In 8 cases, perineural invasion was seen on frozens, but only perineural inflammation was appreciated on permanent sections. Conversely, 5 cases showed perineural invasion on permanents when only perineural inflammation was seen on frozen sections. Special stains (cytokeratin and/or S-100) were used in 32% of permanent cases to aid diagnosis. In reviewing the slides, the change in diagnosis is more likely to represent different sections of the block revealing different tumor char-

acteristics than misinterpretation. All of the BCC's were of an aggressive subtype (morpheaform, infiltrating, or micronodular). Of the 45 patients with PN or PNI, 12 (27%) patients reported pain. Tumors were also larger if PN or PNI was present. Tumors were 3.3 times larger pre-operatively and 3.1 times larger after the final stage than tumors without PN. Tumors with PN or PNI required 2.83 stages compared to 2.06 stages of controls. 9% of patients were immunocompromised and 27% of tumors were recurrent. Many patients were referred to further treatment after clearing the tumor with Mohs surgery. Eighteen (49%) of patients were referred to Otolaryngology and 6 (16%) patients received post-op radiation therapy.
Conclusions: It is imoportant to identify perineural involvement as it is associated increased morbidity and mortality. PN or PNI was seen in 2.1% of our cases and was more likely in SCC (4.7%)than BCC (1.1%). Tumors with PN features are larger, require more stages, and are more likely to be recurrent than control tumors. The diagnosis of perineural invasion can be assisted with both permanent sections of the tumor as well as special stains such as cytokeratin and S-100. The discordance seen between frozen and permanent sections documents the range of histopathologic features that results from different tissue sampling.

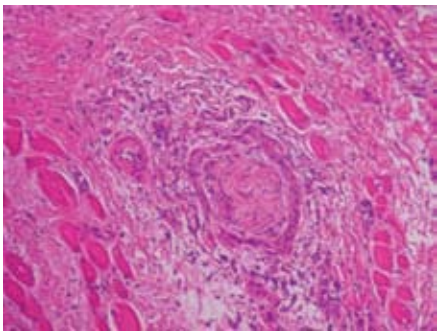


IMAGE:288407_A.jpg
Perineural invasion was noted on H&E when the Mohs stages were submitted for permanent sections. Only perineural inflammation was appreciated on frozen sections.

102

TITLE: The Truth About Over-the-Counter Scar Products: False Claims of Efficacy
AUTHORS: Alissa C. Wilmot, B.A.; Christopher J. Miller, M.D.
Purpose: Patients frequently inquire about over-the-counter (OTC) products to prevent or treat scars. Many OTC products claim to improve the color, texture, and volume of scars, sometimes in as few as 72 hours. Few government regulations apply to the production and sale of these products. The purpose of our study was to identify the claims to efficacy, ingredients, directions for use, warnings, and prices of the best-selling OTC scar treatment products and to review the English literature for evidence regarding the efficacy of the 10 most common OTC product ingredients.
Design: Best-selling OTC scar treatment products were identified on the popular consumer website, drugstore.com. The popularity, price, ingredients, and package information were evaluated for the twenty best-selling products. A review of the literature was performed from a Pub Med search cross-referencing each of the ten most common ingredients of OTC scar treatment products with the word, "scar."
Summary: The search on drugstore.com identified 20 OTC scar products costing an average price of $16.25 (range $9.49-$59.99). Only 2 of these products were registered with the Federal Drug Administration. Many products make spurious claims of efficacy. The majority of products require prolonged application for several months. The average product included 9.2 ingredients. The 10 most common ingredients included silicone, vitamin E, water, methylparaben, glycerin, onion extracts, carbomer, polyethylene glycol, vitamin A derivatives, and vitamin C. Review of the English medical literature indicates that little evidence supports the use of OTC scar products.
Conclusions: Scant data support the efficacy of OTC products to treat scars. Patients who use these products may incur considerable expense and effort only to obtain disappointing results. Due to the lack of Federal Drug Administration oversight, physicians have an obligation to counsel patients about the use of OTC scar products.

Table I

Name of Product	Best Selling Rank	Cost of Smallest Cost of Smallest Quantity Advertised	Amount in Package	Ingredients	Number of Ingredients Listed	Vehicle	Registered with the FDA as a drug or device?	Claims of Efficacy	Directions for Use	Warnings
Mederma« Skin Care for Scars	1	$26.99	1.76 oz	Water, PEG-4, Onion (Allium Cepa Bulb Extract), Xanthan Gum, Allantoin, Fragrance, Methylparaben, Sorbic Acid	7	Gel	No	#1 Doctor and pharmacist recommended product for scars. Helps old and new scars resulting from, surgery, injury burns, acne, and stretch marks, appear softer and smoother.	Apply a thin coat of Mederma« to the scar and gently massage in 3 times a day for 8 weeks on new scars and 3 times a day for 3 to 6 months on existing scars.	Not intended for use on open wounds
Neosporin« Scar SolutionÔ Silicone Scar Sheets	2	$29.99	28 sheets	Silon« (Silicone Sheeting)	1	Silicone Sheet	Yes - As a Device	Significantly improves the appearance of existing scars. Helps prevent the formation of scars on newly healed wounds. Technology used by burn centers & plastic surgeons	Each sheet can be worn for 3-4 days. Each sheet should be worn for a minimum of 12 hours per day. Improvement may be seen in as little as 4-8 weeks.	Do not use on open wounds or unhealed skin. If a rash or other allergic reaction occurs, stop use and consult a doctor. Keep out of reach of children under age 3 and pets as sheets may present a choking hazard.
Scarguard« Scar Care«	3	$59.99	1 oz	Hydrocortisone 0.5%, Silicone, Vitamin E, Collodion	4	Liquid	No	Clinically proven to dramatically improve the appearance of both old and new scarsâ Simply brush on twice daily and you will see a visible difference.	Clean affected area with mild soap and water, dry thoroughly. Brush on twice daily Allow to dry for 1 minute before coming into contact with clothing Reapply if peeling Children from 2 - 12 years of age ask a doctor.	For external use only. Do not use on children under 2 years of age. Do not use on mucous membranes.
Curad« Scar TherapyÔ	4	$15.79	21 day supply	Polyurethane, Sodium Acrylates, Alpha Tocopherol	3	Clear Pads	Yes - As a Device	Clinically proven Reduces raised, colored and keloid scars Scars appear softer, smoother and flatter Visible results within 8 weeks For old and new scars Silicon-free, self-adhesive pad Recommended by plastic surgeons and dermatologists	Best results if pad is worn at least 12 hours per day. Results within 8 weeks. Using the pads for more than 8 weeks may further improve the appearance. Change pad daily.	Do not use on open wounds or burns. Do not use if rash or irritation develop. se on Do not use on infants under 3 years of age to prevent the risk of ingestion and choking.
Vita-K Solution« for Scars & Bruises	5	$10.31	2 oz	Water, Safflower Oil, Mineral Oil, Propylene Glycol, Caprylic/Capric Triglyceride, Glyceryl Stearate, PEG-100 Stearate, Dimethicone, Stearic Acid, Phytonadione (Super Vitamin K), Magnesium Ascorbyl Phosphate, Hydroxyethylcellulose, Ethoxydiglycol, Silica, Titanium Dioxide, Iron Oxide, Carbomer, Triethanolamine, Methylparaben, Diazolidinyl Urea, Shavegrass Extract (Equisetum Arvense)	21	Cream	No	Dramatic Results in Just Weeks! You don't have to live with embarrassing, ugly stretch marks or other unsightly skin conditions any longer...Dramatic Results in Just Weeks! You don't have to live with embarrassing, ugly stretch marks or other unsightly skin conditions any longer...	For best results apply a sufficient amount on the desired area twice a day, preferably after shower or bath. When desired results are achieved, continue to use once a day, to help keep scars and bruises from re-appearing.	For external use only. Avoid contact with eyes. If irritation develops discontinue use. Keep away from children
derma e« Scar Gel	6	$18.49	2 oz	Purified Water, Onion Extract (Allicin), Glycerin, Allantoin, dl-Panthenol, Carbomer 940, Methylparaben, TEA, Urea, Fragrant Oils	10	Gel	No	A unique blend of botanical extracts in this greaseless, pleasant-smelling gel softens, smoothes, and helps to diminish the appearance of scars. Also excellent for stretch marks, calluses, scar tissue, and other skin hardening.	For new scars, apply 3-5 times daily for 8 weeks and for old scars 3 to 6 months for maximum benefit.	None indicated
Scar Guard« Liquid Lightener	7	$59.99	1 oz	Hydroquinone 2%, Retinoic acid, Melatonin, MSM, BHT, NA metabisulfite, Arbutin, Cystamine licorice root, Dandelion root, Hydroxyanisole, Ascorbic acid, hydroxypropylcellulos, Kojic acid, Azealic acid, Acetone, Propylene glycol, Ethyl alcohol, Distilled water	18	Liquid	No	To lighten dark skin discolorations, anywhere. First choice of thousands of Dermatologists and Plastic Surgeons nationwide.	Brush a small amount twice daily. Limit sun exposure.	For external use only. Do not use on children under 12 years of age. Do not use on mucous membranes. When using this product mild irritation may occur.
2nd Skin« Scar Gel	8	$9.69	15 g	Silicone	1	Gel	No	2nd Skin« Scar Gel is medically proven to help flatten and fade scars.	Apply a thin coat on the affected area, allowing to air dry. Follow this procedure daily.	Do not use on open wounds or third degree burns. Should not be used on persons with dermatological conditions or disorders
Sudden Change« Scar Zone Topical Scar Diminishing Cream	9	$9.99	1 oz	Octinoxate 7.5% (Sunscreen), Zinc Oxide 3.93% (Sunscreen) , Dimethicone (Silicone), Water, Hydrogenated Polydecene, PEG-30 Dipolyhydroxystearate, PEG-22/Dodecyl Glycol Copolymer, Caprylic/Capric Triglyceride, PEG-8, Hydrogenated Castor Oil, Cyclopentasiloxane (Silicon Fluid), Sodium Chloride, Silica, Octydodecanol Camellia Senensis Leaf Extract (green tea), Butylene Glycol, Allium Cepa (Onion) Bulb Extract, DMDM Hydantoin, Tocopheryl Acetate (Vitamin E), Lauryl Glucoside, Phytonadione (Vitamin K)	21	Cream	No	When massaged into the scar twice daily, Scar Zone even helps raised and discolored scars become flatter, softer, smoother and closer to the skin's own natural tone...no matter how long you've had the scar, Scar Zone should help.	Gently massage into scar twice daily for 2-3 minutes.	For external use only. Avoid contact with eyes. Not intended for open wounds. Keep out of reach of children.
Scar Fx« Scar Esthetique Ointment	10	$21.99	1.7 oz	Infusion of Arnica and Calendula, Cetyl Alcohol, Caprylic/CapricTriglyceride, Cetyl Palmitate, Glycerin, Dimethicone, Glucosamine, Co Enzyme (Q10), Retinyl Palmitate (Vitamin A), Copper Peptide, Pycnogenol, Arnica, Cholecalciferol (Vitamin D), Beta Carotene, Tocopherol Acetate (Vitamin E), Seaweed Extract, Squalane, Calendula Extract, Algae Extract, Comfrey, Lecithin, Ascorbyl Palmitate, Ascorbic Acid (Vitamin C), Ceteareth 20, Citric Acid, Sodium Hyaluronate, Steareth-2, Methylparaben, Propylparaben	29	Ointment	No	Apply Scar Esthetique ointment 3-4 times daily over your scar. Results can take as little as 72 hours up to 3 months.	For external use only. Keep out of your eyes. Do not use on open wounds. If a rash occurs, discontinue for 24 hours.	For external use only. Keep out of your eyes. Do not use on open wounds. If a rash occurs, discontinue for 24 hours.

103

TITLE: The Importance of Reviewing Pathology Specimens before Mohs Micrographic Surgery

AUTHORS: Susan T. Butler, MD; Joshua Mandrell, B.A.; Summer R. Youker, M.D.

Purpose: To emphasize the importance of reviewing pathology slides before performing Mohs micrographic surgery by identifying the number of times the diagnosis was changed as a result of a second histopathologic opinion. Additionally, we will identify how frequently the change in diagnosis resulted in a change in the management of the patient.

Design: It is the policy of our Mohs surgeons that all outside pathology be reviewed by an internal dermatopathologist prior to surgery. All patients treated with Mohs micrographic surgery between January 2003 and September 2006 were evaluated to determine if there was a change in diagnosis between the original biopsy report and the slide review by Saint Louis University dermatopathologists. If there was a change in the recorded diagnoses, the patient's chart was reviewed to determine if that change resulted in alteration of the patient's management.

Summary: The total number of cases reviewed was 3,324. The review of the original biopsy slide resulted in 81 changed diagnoses (2.4%). Of these changes, 26 (32.1%) were from malignant to benign diagnoses, 5 (6.2%) were from benign to malignant diagnoses, 31 (38.3%) involved a change in malignant tumor classification, 4 (4.9%) were from a benign to another benign condition, 2 (2.5%) were from benign to premalignant diagnoses, 6 (7.4%) were from malignant to premalignant diagnoses, and 7 (8.6%) were from premalignant to malignant diagnoses. Of the 81 cases in which the diagnosis was changed, 41 (50.6%) resulted in a change in the management of the patient. Most often it was a cancellation of the surgery, changing from Mohs to a wide local excision, or vice versa.

Conclusions: In a considerable number of cases, review of the pathology slides before surgery resulted in a change in diagnosis. In nearly half of those cases, the second opinion led to a change in the management of the patient. While reviewing pathology before surgery is the standard of care in many specialties, it is not the standard for many dermatologic surgeons. This quality assurance practice can have an enormous therapeutic and prognostic impact on patients.

104

TITLE: Effective Regional Anaesthesia of the Second and Third Divisions of the Trigeminal Nerve (V2, V3) Using a Single Cutaneous Entry Point

AUTHORS: Seaver L. Soon, MD; Brian N. Streams, MD; Jeffrey S. Eaton, MD

Purpose: Although effective, surgical procedures such as facial ablative resurfacing or large tumor resection may require anesthesia in a broad distribution not achieved by conventional infraorbital and mental nerve blocks. Indeed, conventional regional anesthesia of these nerves spares the temple, lateral malar prominence, lateral cheek, and anterior auricle. To address this deficit, we describe a method to achieve regional anaesthesia of the complete second and third divisions of the trigeminal nerve (V2, V3) using a single cutaneous entry point.

Design: Skull base anatomy texts were reviewed to identify superficial landmarks for a safe approach to the nerve trunks associated with the second and third divisions of the trigeminal nerve (V2, V3) as they exit the foramen rotundum and the foramen ovale, respectively. Head and neck magnetic resonance images from 11 patients were analyzed mathematically to determine mean angles of insertion and distances to the nerve roots.

Summary: Entry is at the center of the mandibular notch, defined anteriorly by the coronoid process, superiorly by the zygomatic arch, and posteriorly by the temporomandibular joint. For the second division of the trigeminal nerve (V2), the angle of needle insertion is, on average, 27 degrees anterior to the coronal plane and 17 degrees superior to the axial plane. Mean needle advancement distance is 40mm. For the third divison of the trigeminal nerve (V3), the angle of needle insertion is, on average, 90 degrees to the sagittal plane. Mean needle advancement distance is 35mm. This approach has been successfully applied to 12 patients undergoing ablative facial resurfacing without complication.

Conclusions: Safe, reliable regional anaesthesia of the second and third divisions of the trigeminal nerve (V2, V3) may be achieved through a single cutaneous entry point. This approach may benefit patients who require anesthesia of the lower face in a broader distribution than that achieved by conventional infraorbital and mental blocks.

105

TITLE: Anatomic Variation of Secondary Intention Healing

AUTHORS: Daniel B. Stewart, M.D., Ph.D.; Juliet L. Gunkel, M.D.; Stephen N. Snow, M.D.

Purpose: Secondary intention healing remains an important method for wound healing after cutaneous surgery. Based on experience, Zitelli proposed dividing the face into three anatomic zones to help predict cosmetic results from secondary intention healing. While Mott et al. carefully assessed the amount of wound contraction in these zones, a blinded comparison of cosmetic outcome between these zones has not been performed. The objective of our study was to compare in a blinded fashion the cosmetic outcomes predicted by the zones of secondary intention healing proposed by Zitelli.

Design: Patient files were randomly selected from the University of Wisconsin – Madison Mohs clinic and reviewed for cases of secondary intention healing. Criteria required for inclusion included: 1) availability of clear photographs of the post Mohs surgery wound immediately post-operative and at least 8 weeks post-operative, 2) greater than 90% of each individual wound was located in a single anatomic subunit as described by Zitelli, 3) each wound was at least 1 cm in average diameter, 4) each wound extended in depth to at least the reticular dermis. Photographs of the wound post operatively and the healed result were evaluated by both a trained dermatologic surgeon and a non-medically trained reviewer who were not aware of the study design or purpose. Scars were evaluated for color, texture/contour, and overall scar cosmesis.

Summary: Analysis of results demonstrated that anatomic subunits as defined by Zitelli can help predict cosmetic outcome; however within any individual subunit, cosmetic outcome can vary.

Conclusions: Knowledge of variables affecting secondary intention healing, including variation between anatomic subunits of the face, is critical for proper patient selection and optimization of cosmetic outcome.

107 LATE-BREAKING

TITLE: Adjuvant Radiotherapy for High Risk Cutaneous Squamous Cell Carcinomas: A Systematic Review of the English Literature

AUTHORS: Anokhi H. Jambusaria, MD; Nanamiba Smith, MD; Rhonda Quain, BA; Christopher J. Miller, MD; Harry Quon, MD; Chrysalyne D. Schmults, MD

Purpose: A systematic review of the English medical literature was conducted comparing reported outcomes for high-risk cutaneous squamous cell carcinoma patients treated with surgery alone versus surgery plus adjuvant radiotherapy. Outcomes evaluated were local recurrence, nodal and distant metastasis, and disease-specific survival.

Design: A systematic search of the Medline database was conducted to collect reports of treatment of high-risk cutaneous squamous cell carcinoma. Lesions were considered high risk if they were >2 cm in diameter (or >1.5 cm in diameter on the lip), >4mm deep, recurrent, located on the ear, anogenital region or in areas of chronic inflammation, had evidence of perineural or lymphovascular invasion, or were poorly differentiated. We included all reports that provided patient level data for outcomes of interest (local recurrence, nodal recurrence, distant metastasis, and disease-specific survival) stratified by treatment (surgery versus surgery plus radiotherapy). Cases were excluded if it was stated that the surgical margin was positive prior to radiation.

Summary: The Medline search enumerated 1,888 reports. Treatment and outcome data were available in 105 reports. 53 reports concerned squamous cell carcinoma of the anogenital region. The remaining 51 reports included non-anogenital squamous cell carcinoma. Only 20 reports explicitly stated that surgical margins were clear prior to radiotherapy. There were no significant differences in outcomes for those treated with surgery compared to those treated with surgery plus adjuvant radiotherapy. (Surgical monotherapy: local recurrence 8.03%, nodal metastasis 7.66%, distant metastasis 2.14%, disease specific death 4.43%; Surgery and adjuvant radiotherapy: local recurrence 10.53%, nodal metastasis14.04%, distant metastasis 8.77%, disease specific death 6.14%). In a subgroup analysis, cases which had only met high-risk criteria by location (ear, lip and anogenital) were excluded. In this analysis, those treated with adjuvant radiotherapy had worse outcomes than those treated with surgery alone (Surgical monotherapy: local recurrence 8.99%, nodal metastasis 4.64%, distant metastasis 5.07%, disease specific death 4.49%; Surgery and adjuvant radiotherapy: local recurrence 10.71%, nodal metastasis 12.50%, distant metastasis 12.50%, disease specific death 10.71%).
Conclusions: There is no clear data demonstrating that adjuvant radiotherapy decreases local recurrence, nodal or distant metastasis, nor disease-specific death. Though the data compiled in this review show worse outcomes for those treated with adjuvant radiotherapy, it is likely that many patients who received adjuvant radiotherapy had tumors where a clear surgical margin was in doubt or who otherwise had a worse prognosis as compared to those who did not undergo adjuvant radiotherapy. Thus, it is not possible to determine from available data whether adjuvant radiotherapy leads to improved outcomes in high-risk SCC patients. Since surgical monotherapy results in high cure rates, even for high-risk SCC, a benefit to adjuvant radiotherapy may only exist in highest-risk cases. This has yet to be proven. Further work to establish prognostic estimates for patients with various combinations of high-risk criteria is needed to define a "highest-risk" group. Randomized clinical trials involving these highest-risk patients are necessary to determine whether adjuvant radiotherapy is beneficial in high-risk cutaneous squamous cell carcinoma. Previously Presented : This poster has not been previously presented.

108

TITLE: Utilization of Mohs Micrographic Surgery and Related Procedures in the Medicare Population
AUTHORS: Julie A. Neville, MD; Steven Feldman, MD; Phillip M. Williford, MD; David J. Leffell, MD
Purpose: Mohs micrographic surgery (MMS) is the most effective treatment for non-melanoma skin cancer. With the increasing incidence of these cancers, the frequency of use of MMS may be changing. We examined the utilization of MMS and related reconstruction.
Design: MMS claims were identified by Current Procedural Terminology (CPT) codes 17304 through 17310 from Medicare part B claims data in the Medicare Current Beneficiary Survey, 1992 to 2000. These claims were analyzed by physician specialty including dermatology, plastic surgery, general surgery, and otolaryngology. Claims for closure of MMS defects were identified using the CPT codes for intermediate, complex linear, adjacent tissue transfer/rearrangement and split and full thickness grafts. Data was weighted to obtain nationally representative estimates. The number of physicians in each specialty was obtained from the American Medical Association data for the year 2000.
Summary: A total of 2.2 million claims were made for MMS procedure codes from 1992-2000. Claims increased from 160,429 in 1992 to 362,148 in 2000 (226%) with 95.7% of claims submitted by dermatologists, 1.0% by plastic surgeons, 1.6% by general surgeons, 0.7% by otolaryngologists, and 1.0% by all other specialties. Specialists in areas other than dermatology had a higher percentage of claims made for the first stage with a similar percentage of claims made for multiple stages. Over the 8 year period examined, dermatologists performed 121.2 MMS procedures/surgeon while plastic surgeons performed 2.7 procedures/surgeon, otolaryngologists (1.7 procedures/surgeon), and general surgeons (0.9 procedures/surgeon). The proportion of MMS defects repaired with intermediate and complex linear closures has increased, skin grafts frequency is unchanged but that of flaps has decreased.
Conclusions: MMS is a technique primarily practiced by dermatologists although this technique is practiced by other specialties. Fundamental to the Mohs technique is a knowledge of dermatopathology, an area in which dermatology residents receive extensive training. As knowledge of the technique, its effectiveness and its value become more widely known, more widespread use of MMS by other specialties can be expected.

109

TITLE: Chemowraps for Diffuse Squamous Cell Carcinoma of the Extremities
AUTHORS: Jeff Petersen, MD; Margaret Mann, MD; David Birk, MD
Purpose: Many patients present to the Mohs surgeon with multiple or diffuse squamous cell carcinomas' on their extremities. Often the surgeon may wonder, "Where do I begin" with these patients. Treatment can require several procedures or a single extensive procedure. This can leave the patient with multiple scars and/or severe cutaneous disability due to the reconstruction. Patients also become despondent after multiple procedures have been done because they see their skin continue to worsen. Application of 'chemowraps" several weeks prior to surgical therapy eliminates or minimizes the need for surgical intervention and improves the overall quality of the integument in the areas treated.

Design: Over the past five years, we have used chemowraps on patients with extensive squamous cell carcinoma of the extremities. Included among these patients are several with radiation resistant squamous cell carcinomas' for whom the procedure has been successful. We will describe the process by which they are applied, the appearance of the skin during the treatment process, and the clinical follow up and treatment necessary after successful therapy.
Summary: Chemowraps can be used to successfully manage those patients with multiple and extensive squamous cell carcinoma on the extremities. It can clear the integument completely of tumors or minimize the tumor burden so that only non resolving tumors will require surgical intervention. It also allows patients to be actively engaged during their post therapy course to minimize future recurrence of their skin cancer.
Conclusions: Chemowraps are an effective alternative to reduce or eliminate the need for multiple surgical procedures in patients with diffuse squamous cell carcinomas of the extremities.

110

TITLE: Surgical Excision of Vegetative Herpes Simplex Virus Infection in Immune Suppressed Patients
AUTHORS: Vinh Chung, MD, MPharm Sci, MTh; Douglas C. Parker, MD, DDS; Sareeta Parker, MD
Purpose: The purpose of this poster is to present an atypical presentation of HSV in immune suppressed patients, the pathological findings, and the treatment options. Herpes simplex virus (HSV) infection is one of the most common sexually transmitted diseases and is often more prevalent and severe in HIV-positive patients. HSV typically presents as clustered vesicles, pustules, erosions, or ulcerations. Nodular, exophytic, or vegetative lesions of HSV have been less frequently reported. However, due to the increasing prevalence and longer lifespan of HIV positive patients, this presentation may become more common.
Design: We report two HIV-seropositive patients who each presented with an exophytic eroded genital plaque that was induced by HSV. Biopsies revealed changes consistent with HSV infection, including multinucleation, chromatin margination, and molding. Immunohistochemical stains were also positive for the presence of herpes virus. In the first case, although viral culture and skin biopsies supported the diagnosis of acyclovir sensitive herpetic infection, the patient failed to respond to oral and parenterally administered antiviral therapies. Surgical excision was performed, and the wound was closed primarily. The wound has healed with excellent cosmetic result, and the patient has been cleared of the lesion for over 1 year. In the second case, the HSV-induced lesion responded only after prolonged therapy with high dose oral acyclovir.
Summary: HSV may present atypically as vegetative plaques or nodules in immune suppressed patients. Vegetative herpetic lesions may mimic squamous cell carcinoma, condyloma or other sexually transmitted diseases such as granuloma inguinale. The atypical presentation frequently results in delayed diagnosis and/or unnecessary therapy. Suspicion for an atypical HSV infection should be confirmed with a biopsy and immunohistochemical stain or viral culture to confirm the diagnosis and to direct treatment. Both of our patients were HIV seropositive men who presented with vegetative plaques in the genital region. Both patients had culture positive acyclovir-sensitive genital HSV, and skin biopsies confirmed herpetic infection. Despite therapy with the standard recommended dosage and schedule of oral acyclovir, neither patient responded. One patient failed to respond to all medically administered therapy. We suspect that the poor response to medical therapy in the first patient may be due to the poor tissue penetration of the administered agents, given the extensive fibrosis in the plaque. In this patient, surgical excision was effective in clearing the lesion. The other patient responded only after the acyclovir dose was given for two months, and at a dosage that far exceeded the standard recommendation for genital HSV (400 mg per day three times daily for 7 to 10 days).
Conclusions: To date, approximately 20 cases of vegetative HSV have been reported in the literature. In all cases, the affected patient was immunocompromised, with HIV being the most common cause of immune suppression. In most cases, medical therapy was effective. However, because of the lack of effective medical therapy in some cases of nodular or vegetative HSV, surgical excision may be indicated.

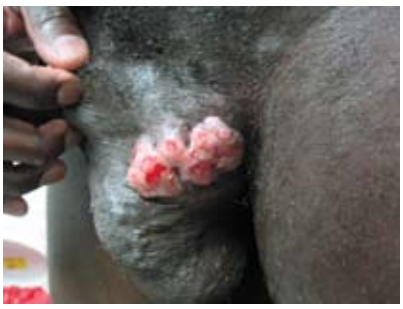


IMAGE:294579_A.jpg

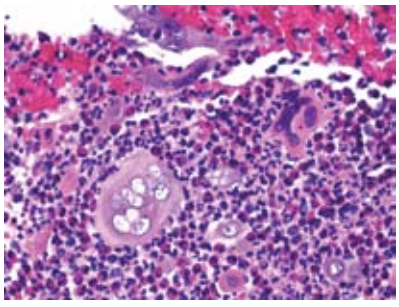


IMAGE:294579_B.jpg

111

TITLE: Earlier Detection of Second Primary Basal Cell Carcinomas in Mohs Surgery Patients

AUTHORS: David Lortscher, BS; Shawn B. Allen, MD; Roberta D. Sengelmann, MD

Purpose: Our purpose was to quantitate the success of Mohs surgeons in counseling existing basal cell carcinoma (BCC) patients about the early recognition of subsequent BCCs.

Design: A four-year retrospective chart review was performed of all patients treated by a dermatologic surgeon using the Mohs surgery technique for at least two separate primary BCCs between January 2001 and January 2005 at Washington University's Center for Dermatologic and Cosmetic Surgery. Our inclusion criteria required that the tumors be the patients' first and second primary BCCs. We confined the study to BCCs to help control for the large variety of growth rates among different types of cutaneous neoplasms. Excluded from the study were patients whose "second" cancer was actually a recurrent tumor, those whose charts were unavailable, and those whose "second" BCC was noted on the day of their first Mohs surgery visit. Our search revealed 510 patients who had been seen twice for Mohs surgery. Of these, 65 met our other inclusion criteria. 54% were male, 100% were Caucasian, and the median age was 64 (range 31-89). All patients were evaluated, measured, and treated by the same physician (RS or Jeffrey Petersen) for each of their two surgeries. For each patient, we recorded the biopsy and Mohs surgery dates, lesion location, clinical description of the lesion, pre and post-excision clinical dimensions, number of Mohs stages performed, whether other cancers were present, and how the diagnosis of BCC was made (i.e. shave / punch biopsy). Our primary variable for data analysis was the area (cm2) of the lesion according to pre-excision clinical measurements. This approximates the degree of clinical visibility to the patient and physician, and thus is a good surrogate for how early the tumor was detected. The areas were approximated using the formula for the area of an ellipse ($A = \pi * r1 * r2$), which is simple and helps account for asymmetric (non-circular) lesions.

Summary: A paired t-test was used to compare the areas of first and second primary BCCs (see Figure 1). Areas were analyzed on a log scale to approximate a Gaussian distribution. On average, a patient's second primary BCC was 1.16 cm2 smaller than the patient's first primary BCC ($p<0.0001$, SEM = 0.52 cm2). The median difference was 0.28 cm2.

Conclusions: This is the first study to our knowledge that compares the difference in size of patients' first and second primary basal cell carcinomas. Studies have shown that a patient diagnosed with a primary BCC has a 33-70% chance of developing a new BCC. Our study supports the notion that treatment by Mohs surgery along with proper counseling may help patients seek treatment earlier for any subsequent BCCs. However, Figure 1 indicates that there may be room for improvement, as significant minorities of patients had second BCCs that were either larger than or equivalent to their first BCCs in respect to visible surface area. This study should provide a background for discussion in the area of skin cancer awareness and primary and secondary prevention, helping to decrease the costs and consequences of skin cancer and its treatment.

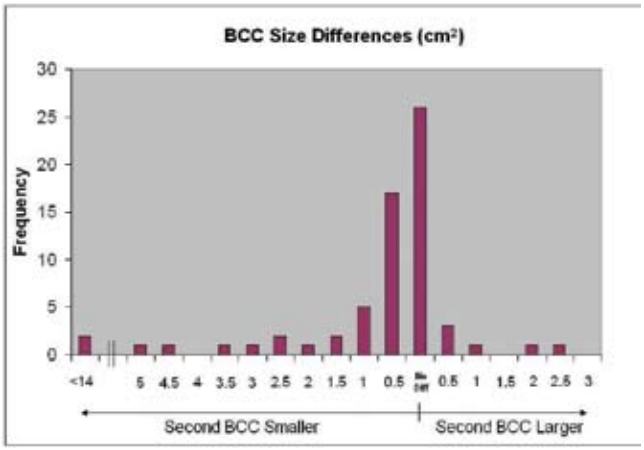


Figure 1. Absolute difference in area (cm2) between each patient's first and second BCC.

112

TITLE: Management of Nonmelanoma Skin Cancers with Bony Invasion: Therapeutic Decision-Making
AUTHORS: Suneeta S. Walia, M.D.; David E. Kent, M.D.
Purpose: To discuss the evaluation, management and therapeutic options of nonmelanoma skin cancers with bony invasion.
Design: Case series of nonmelanoma skin cancers with bony involvement each highlighting different treatment modalities for managing bony invasion.
Summary: Nonmelanoma skin cancers rarely invade bone;however, when bony invasion is documented, it may cause significant morbidity and potentially reduce life expectancy. Squamous cell carcinoma is more likely than basal cell carcinoma to invade bone. While histologic examination of tumor in bone confirms the diagnosis, clinical supsicion is raised with evidence of bone pitting and radiologic imaging studies. We present a series of cases of nonmelanoma skin cancers with bony invasion in which different treatment modalities for managing bony involvement were used. The evaluation, management and therapeutic options of these difficult cases will be discussed, including potential signs of local recurrence other than primary cutaneous lesions.
Conclusions: Bony invasion of nonmelanoma skin cancer may cause significant morbidity and potential reduced life expectancy. Prompt recognition of bony invasion hopefully will improve patient outcome and survival.

113

TITLE: An Approach to Lower Eyelid Reconstruction after Mohs Micrographic Surgery for Squamous Cell Carcinoma Involving the Lower Lid Margin
AUTHORS: Erica A. Mailler-Savage, MD; Hugh M. Gloster, MD
Purpose: To review orbital and periorbital anatomy, approaches to eyelid reconstruction, and principles of achieving good functional and aesthetic results after Mohs involving the eyelid.
Summary: A 45 year-old white male presented to the University of Cincinnati Mohs Micrographic Surgery Center with a 2.5 cm invasive squamous cell carcinoma on the left lower eyelid with involvement of the left lower lid margin. The final defect after Mohs measured 4.0 x 2.5 cm and resulted in excision of the lower tarsal plate, lower lid margin, and eyelashes. We describe an approach to reconstruction of the lower lid and lid margin using a tarsal and conjunctival graft, transposition flap, and full-thickness skin graft.
Conclusions: Reconstruction of the eyelid after Mohs surgery requires an in-depth knowledge of methods to achieve a good functional and aesthetic result as well as orbital and periorbital anatomy.

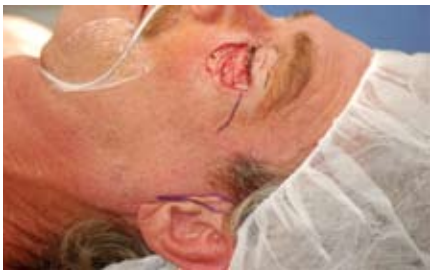


IMAGE:294997_A.jpg
Final defect and outline of graft and transposition flap

IMAGE:294997_B.jpg

114

TITLE: Erosive Pustular Dermatosis of the Scalp: A Mimic of SCC
AUTHORS: Dori Goldberg, MD; Jeremy S. Bordeaux, MD; Mary E. Maloney, MD
Purpose: Erosive pustular dermatosis of the scalp (EPDS) is an uncommon disorder of unknown etiology that can mimic SCC in its clinical presentation, leading to referral to dermatologic surgeons for treatment. We present a case series and review of EPDS in order to increase awareness of this entity, its presentation and management.
Design: We present 4 patients who were referred to our dermatologic surgery clinic for evaluation and treatment of suspected skin cancers. Clinical examination and biopsy of their presenting lesions established a diagnosis of EPDS in each case.
Summary: EPDS presents in elderly patients with chronic erosion, crusting and pustulation of small or extensive areas of the scalp, a clinical picture that can be easily mistaken for either pyoderma or SCC. The histology of EPDS is nonspecific, with erosion, atrophy, and crusting of the epidermis, and granulation tissue and chronic inflammation of the dermis. The presence of pseudoepitheliomatous hyperplasia on histology may also support an erroneous diagnosis of SCC, while bacteria, thought to be a secondary phenomenon and not causative, may suggest infection. However, unlike SCC and pyodermas, surgical excision and antibiotic therapies are not effective. Our four patients responded to therapy with high potency topical corticosteroids. There are also reports of therapeutic success with topical calcipotriol and tacrolimus, and oral therapy with retinoids, zinc

sulfate or non-steroidal anti-inflammatory agents. In spite of therapy, EPDS often recurs and can lead to atrophic scarring and permanent alopecia.

Conclusions: The clinical presentation of EPDS can easily lead to a mistaken diagnosis of SCC and therefore performance of unnecessary Mohs or other surgical procedures. Increased awareness of this entity is needed to provide EPDS patients with correct diagnosis and treatment options. Lesions clinically consistent with EPDS should be re-biopsied if initial histology shows SCC, as the presence of pseudoepithiliomatous hyperplasia can be misleading. Current evidence supports therapy with topical corticosteroids, tacrolimus and calcipotriol; however, frequent recurrence warrants long-term clinical follow-up.

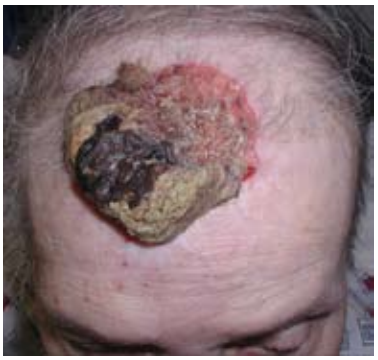


IMAGE:295228_A.jpg
Large crusted plaque on the scalp of an elderly man

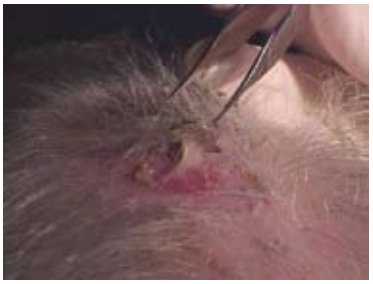


IMAGE:295228_B.jpg
Scalp erosion with overlying purulent material and crusting

115

TITLE: Complete Histologic Margin Control for Vertical Full-Thickness Disc or Elliptical Excisions of the Skin: A Variation of the Traditional Mohs Technique

AUTHORS: Arash Kimyai-Asadi, M.D.; Leonard H. Goldberg, M.D.; Ming H. Jih, M.D., Ph.D.

Purpose: The basic principle of Mohs surgery is that complete histologic visualization of the surgical margin is necessary for high-risk or aggressive cutaneous tumors. The traditional technique involves debulking of the tumor using a curette or scalpel followed by removal of a beveled portion of skin surrounding the tumor. Beveling, however, necessitates the removal of wider surgical margins around deeper tumors. Moreover, partial thickness defects usually have to be excised through the full thickness of the dermis or at least be “de-beveled” prior to surgical repair.

Design: We describe methods that can be used to obtain complete histologic margin control using full-thickness vertical excisions of the skin. These excisions can be either circular disc-excisions or elliptical excisions of the skin.

Summary: Vertical excisions specimens from the skin allow separate histologic visualization of the epidermal and dermal margin and the subcutaneous fatty tissue. This improves the quality of slides, as sectioning of specimens with epidermis, dermis and subcutaneous fat at a constant thickness results in sections that are either too thick for evaluation of the epidermis and dermis, or those with loss of the deep margin due to shearing away of the subcutaneous fat. Moreover, flattening of the tissue is much easier and reduces the potential for folding and loss of specimen edges during histologic processing. In addition, very narrow margins can be used for the excision of deeper nodular tumors. The central portion of the tumor is kept intact with this technique, so if any subsequent questions arise regarding the exact diagnosis, the tumor is maintained in its entirety. Finally, preoperative curettage as well as debeveling and deepening the excision prior to repair are generally not required, making this a more efficient process.

Conclusions: Vertical excision specimens can be processed using the Mohs technique to provide complete visualization of the entire peripheral and deep surgical margins. This technique is ideal for invasive and deep tumors, but can be used for all Mohs excisions.

116

TITLE: Eruptive Post-Operative Squamous Cell Carcinomas Exhibiting a Pathergy-Like Reaction around Sites of Cutaneous Trauma

AUTHORS: Suleman Bangash, D.O.; W. Harris Green, M.D.; Armand B. Cognetta Jr., M.D.

Purpose: The isomorphic response of Koebner and the pathergy skin reaction have not classically been associated with neoplastic processes such as cutaneous squamous cell carcinoma (SCC). We report 5 patients who presented with rapidly growing eruptive SCCs that had arisen from sites of recent cutaneous trauma, including previously excised non-melanoma skin cancers.

Design: We present a case series multiple treatment centers.

Summary: We feel that pathergy may be a characteristic and a significant finding in a subgroup of SCCs and we present these interesting case reports to make clinicians aware of the possibility of developing recurrent SCCs in sites of trauma. By making clinicians more aware of the possibility of SCC arising in sites of trauma, we feel more adequate and prompt treatment will be accomplished for these SCCs, especially in high risk patients such as organ transplant patients or patients with immunosuppressive therapies.

Conclusions: We report 5 cases of squamous cell carcinomas that have arisen is sites of previous cutaneous trauma, therefore exhibiting the phenomenon known as pathergy. Furthermore, this case series suggests that some individuals appear to be predisposed to this recurrent , pathergy-like reaction involving SCCs.

117

TITLE: Utility of High Frequency Ultrasound in the Pre-Operative Assessment of Margins of Basal Cell and Squamous Cell Carcinoma

AUTHORS: Chrysalyne D. Schmults, MD; Anokhi H. Jambusaria, MD; Christopher J. Miller, MD; Joel Gelfand, MD

Purpose: To evaluate the accuracy of a high frequency ultrasound to assess the margins of basal cell and squamous cell carcinomas prior to the first stage of Mohs micrographic surgery. Mohs section histology served as the gold standard for tumor extent.

Design: Patients with invasive squamous cell or basal cell carcinomas were enrolled in this study. 21 patients were included in the pilot phase. 100 patients are being enrolled in the formal study. A fellowship-trained academic Mohs surgeon preoperatively demarcated the surgical margin for the first stage of Mohs surgery; which included 1-2 mm of normal appearing skin beyond the clinical margin. Subsequently, a trained ultrasound technologist used an ultrasound machine (EPISCAN I-200; 20 MHz-50 MHz) to determine if tumor extended peripherally beyond the surgeon's first stage Mohs surgical margin. The area of tumor extension was documented on a grid by the ultrasound technologist, which was to the same orientation as the Mohs diagram. The Mohs surgeon was blinded to the ultrasound results when he/she excised the first Mohs stage. Histopathologic evaluation of first-stage Mohs sections stained with hematoxylin and eosin was then compared to the ultrasonographic evaluation, with histopathology serving as the gold standard of tumor extent. If tumor extension was seen on ultrasound and histology, the Mohs surgeon determined if the location of extension on histology correlated with the ultrasound.

Summary: Preliminary results of ultrasound-derived margins from 21 patients enrolled in the pilot phase of the study show a sensitivity of 70% and a specificity of 45% compared to Mohs section histology. Enrollment in the study is still ongoing, and to date, 41 patients have been enrolled in the study. It is expected that enrollment will be completed by the end of October, and statistical evaluation completed by the end of November. At the ACMMSCO meeting, we will present our study data, including the sensitivity and specificity of ultrasound in determining tumor margins, as compared to the gold standard of Mohs section histology.

Conclusions: If ultrasound has a high sensitivity and specificity in margin determination and is more accurate than a surgeon's naked eye in margin prediction, pre-operative ultrasound may allow Mohs surgery to be carried out more efficiently with fewer stages.

118 LATE-BREAKING

TITLE: Prospective, Investigator-Blinded, Clinical Outcome Study Comparing Post-Operative Scaring Using Superficial Tissue Scoring Versus Surgical Marker During Mohs Micrographic Surgery

AUTHORS: Daniel B. Eisen, M.D.; Thomas King, M.D.

Purpose: The purpose of the study was to determine if there was any statistical difference in outcomes using superficial tissue scoring to that of surgical marker during mohs micrographic surgery for cutaneous neoplasms. Specific measured treatment outcomes were the presence of detectable hatch marks at 6 weeks following surgery, number of times hatch marks were lost during Mohs surgery, size of the surgical defect, type of reconstruction and number of times the surgical marker rubbed off during Mohs surgery.

Design: This is a prospective evaluator blinded study comparing treatment outcomes between superficial tissue scoring and surgical marker use during Mohs micrographic surgery for cutaneous neoplasms. The study utilized 2 fellowship trained Mohs surgeons at a University out patient treatment facility. Patients were recruited from the 2 authors surgery practice. After informed consent, the patient was randomized via a coin toss to either of 2 treatment arms. The first treatment arm was Mohs surgery utilizing superficial tissue scoring. If the patient was randomized to this arm then superficial nicks were made in the surrounding skin to correspond with the division of tissue into blocks for the first layer. No marker was used for this arm. Mohs surgery was then conducted in the usual way as previously described in past publications. The number of times nicks were not visible during surgery preventing localization of positive margin tissue was recorded. 6 weeks following surgery the patients returned for a post operative visit and digital photographs were taken of the operative site with a canon S70 powershot 7 megapixel digital camera. For the second treatment arm no tissue scoring was performed. Instead long lines were drawn on the surrounding skin to correspond with the division of tissue into blocks. The number of times the marker complete rubbed off preventing localization of positive margin specimens was recorded. As with the tissue scoring arm, digital photographs were obtained at the 6 week post operative visit. 8 x 10 ‘ photographs were then printed of each surgery site from both treatment arms. The photos were then given to the surgeon who was not involved in the surgery and asked to evaluate the photos for the presence of score scars. The evaluating surgeon was blinded to which treatment arm the patient was in. Other measured treatment outcomes during the study were the number of times hatch marks or marker were lost during Mohs surgery, size of the surgical defect, and type of reconstruction.

Summary: This is a prospective evaluator blinded, clinical outcome study comparing post operative scaring using superficial tissue scoring versus surgical marker during mohs micrographic surgery for cutanteous neoplasms. To date 86 patients have completed the study. No score marks have been observed in either treatment group. The surgery marker did not wear off during any of the treatments and the score marks were visible for needed positive margin specimen localization in every evaluated case. No adverse events were observed due to either tissue marking method.

Conclusions: 86 patients have thus far completed the study. 43 patients had flap closures, 26 healed by second intention, 2 patients were closed primarily, and 7 had resurfacing with a cutaneous graft. No score marks have been observed in either treatment group. The surgery marker did not wear off during any of the treatments. No adverse events were observed due to either tissue marking method. Both methods appear to work well and surgeons should choose which ever method they feel most comfortable with.

119

TITLE: Modified Sling Myocutaneous Island Pedicle Flap

AUTHORS: Andrea Willey, MD; Diamondis J. Papadopoulos, MD; Ken K. Lee, MD; Neil A. Swanson, MD

Purpose: The original superiorly based myocutaneous island pedicle flap with bilevel undermining above and below the nasalis muscle is an innovative flap that produces a bilateral muscular sling with exceptional vascular supply and improved mobility for nasal tip and supratip reconstruction.1 A modification using a unilateral single sling pedicle limited to the lateral nasalis muscle was adapted with superior mobility for lateral nasal defects at or above the alar grove.2 The application of the myocutaneous island pedicle flap improved upon the limited mobility of traditional island pedicle flaps applied to the nose in which mobility is limited by a relatively thin subcutaneous pedicle,3,4 while creating a rich source of vascularity from perforating epimysial beds.1

Design: We introduce additional adaptation of this single sling approach with further undermining of the nasalis muscular sling and the use a medial approach when needed. This introduces greater versatility and rotational mobility to the flap while maintaining the superior vascularity of the muscular pedicle. It can now be applied to a variety of nasal defects including the medial ala and distal tip below the alar crease. The flap can be additionally modified to a fusiform shape for central tip defects that are otherwise routinely closed with a Burrow’s graft or bilobed flap.

Summary: These modifications of the bileveled approach to the nasalis myocutaneous island pedicle flap can be applied to a wide variety of nasal defects with superior cosmesis in both young and aged skin.

Conclusions: These results have been reproduced in over 100 cases. References: 1. Papadopoulos DJ, Trinei FA. Superiorly based nasalis myocutaneous island pedicle flap with bilevel undermining for nasal tip and supratip reconstruction. Dermatol Surg. 1999 Jul;25(7):530-6. 2. Papadopoulos DJ, Pharis DB, Munavalli GS, Trinei F, Hantzakos AG. Nasalis myocutaneous island pedicle flap with bilevel undermining for repair of lateral nasal defects.Dermatol Surg. 2002 Feb;28(2):190-4 3. Hairston BR, Nguyen TH. Innovations in the island pedicle flap for cutaneous facial reconstruction. Dermatol Surg. 2003 Apr;29(4):378-85. 4. Kimyai-Asadi A, Goldberg LH. Island pedicle flap. Dermatol Clin. 2005 Jan;23(1):113-27, vi-vii.

120

TITLE: Double Island Pedicle Advancement Flap Repair of Defects Involving the Vermillion Border of the Lower Lip

AUTHORS: Allison Hoffman, MD; Peter K. Lee, MD, PhD

Purpose: Defects involving both the vermillion and cutaneous lip may be difficult to repair due to the cosmetic importance of properly recreating the vermillion border. Traditional options for repair include: wedge lip repair, mucosal advancement flap, and a bilateral full thickness lip advancement repair. We propose an alternative method to repair defects bridging the vermillion and cutaneous lip. To our knowledge, the application of double island pedicle flaps in this setting has not been described.

Design: Patients with single defects bridging the lower vermillion and cutaneous lip were considered. The maximum defect diameter was 2.0 cm, with partial orbicularis muscle involvement. Island pedicle flaps were designed from both the mucosal lip and the cutaneous lip. Incisions were made to create two triangular flaps. Minimal undermining was performed to allow mobilization of the flaps. The island pedicle flaps were advanced in the traditional manner towards the primary defect. The leading edge of the mucosal flap was advanced to the natural border of the cutaneous lip where it aligned with the leading edge of the cutaneous lip-based flap, thus recreating the vermillion border. Donor sites were repaired primarily.

Summary: Six patients in the University of Minnesota Dermatologic surgery clinic underwent this repair. Functional and cosmetic results are excellent. One patient developed a hypertrophic scar which resolved with intralesional triamcinolone; there were no complications involving the remaining five patients.

Conclusions: A double island pedicle flap is a novel approach to repair defects involving the vermillion border of the lower lip. Advantages include: preservation of the orbicularis musculature, preservation of lip length, as well as minimal undermining and discomfort to the patient. Cosmetic outcomes are excellent.

121

TITLE: Multiple Squamous Cell Carcinomas in the Setting of Psoriasis Treated with Etanercept: A Report of 4 Cases and Review of the Literature

AUTHORS: Alyssa R. Hoverson, M.D.; Jerry D. Brewer, M.D.; Gina C. Ang, M.D.; Randall K. Roenigk, M.D.

Purpose: Psoriasis is a common, chronic, and recurrent inflammatory and hyperproliferative disease of the skin characterized by overexpression of type-1 (TH1) cytokines such as IL-2, IL-6, IL-8, IL-12, IFN-π and TNF-π TNF-π, as part of the TH1 response, is felt to be important in tumor surveillance and in guarding against certain infections. Etanercept is a fusion protein made up of the extracellular domain of the p75 TNF receptor, and the Fc portion of human IgG1. Areas of concern regarding the use of etanercept include opportunistic infections, malignancy/lymphoma, congestive heart failure, demyelination, injection/infusion reactions, the development of autoantibodies, and lupus-like disease. It is felt that patients with rheumatoid arthritis and psoriasis have an increased risk of developing malignancies such as lymphomas, estimated to be to 2 to 3 times higher when compared to the general population. There has also been concern that anti-TNF agents may increase the incidence of other malignancies such as squamous cell carcinomas. A number of reports now exist regarding the apparent association of etanercept and the rapid development of squamous cell carcinomas. Our objective is to determine the characteristics and association of squamous cell carcinoma (SCC) development in patients with psoriasis who have taken etanercept.

Design: The clinic and medication databases were queried to search for patients with psoriasis and squamous cell carcinomas who were also on etanercept. Four patients were identified with psoriasis that developed SCCs after the initiation of etanercept. These charts were then reviewed for data points. The rapidity of onset, aggressiveness (determined by grade of the SCC), and quantity of SCCs developing after the initiation of etanercept was noted. Also, the presence or absence of risk factors for the development of SCCs was assessed.

Summary: Four patients were found to have developed squamous cell carcinomas after the initiation of etanercept. The average age of these patients was 64 years, and all four patients had a lifelong history of psoriasis. Of the four patients, three had a history of prior PUVA exposure, two had UVB exposure, two had used methotrexate in the past, two had used cyclosporine in the past, and two had been on acitretin which was discontinued. None of the patients had a family history of skin cancer, but all four had a personal history of squamous cell carcinomas even before the etanercept was initiated. The mean time of onset of the squamous cell carcinomas was 10 months after starting etanercept; the range was from 1 month to 17 months. The aggressiveness of the SCCs ranged from grade 1 to grade 4. The number of squamous cell carcinomas that these patients developed ranged from 1 to greater than 30. Three of the four patients lived in the Midwest, and three of the four had indoor occupations or hobbies.

Conclusions: Currently, there are conflicting reports as to the effect of etanercept or other anti-TNF-π agents on the development of squamous cell carcinomas in the setting of psoriasis. We present four cases of patients that developed squamous cell carcinoma within a short time after the initiation of etanercept, consistent with past case reports. More research is needed to better characterize the effect of etanercept on the development of squamous cell carcinomas in psoriatic patients.

122

TITLE: Comparative Efficacy of Topical 5-Aminolevulinic Acid Photodynamic Therapy for Treatment of Actinic Keratoses with Using Intense Pulsed Light Versus Ambient Light: A Single-Blinded Randomized Controlled Trial

AUTHORS: Murad Alam, MD; Stephanie Liu, BA; Lucile White, MD; Simon Yoo, MD

Purpose: It has been reported that a variety of light sources beyond the FDA-approved blue light (BLU-U) may be effective in activating 5-aminolevulinic acid (5-ALA) in the treatment of cutaneous carcinogenesis, specifically actinic keratosis (AK). Thus, in clinical practice, intense pulsed light (IPL) sources are frequently used to activate 5-ALA for AK treatment. However, it has been suggested by Strasswimmer and Grande that treatment with ambient light alone may be as or more effective than intense pulsed light in activating 5-ALA. The purpose of this study was to determine the clinical efficacy of 5-ALA photodynamic therapy for treatment of actinic keratosis with intense pulsed light compared to ambient light alone.

Design: Prospective randomized control study of at an urban academic medical center. 10 patients who had been previously diagnosed with simultaneous multiple actinic keratoses and treated by liquid nitrogen cryotherapy were enrolled in this study. For each patient, actinic keratoses were identified using standard clinical criteria separately by 2 dermatologists and marked on drawings of the head and neck; inter-rater discrepancies were reconciled. Patients with more than 6 identifiable AKs, including at least 3 of each side of the face/scalp, then underwent degreasing with acetone, followed by topical 5-ALA (Levulan Kerastick, DUSA) application to the entire face and scalp, except within 5 mm of mucosal surfaces. 2 ALA applicators were used, and 2 passes were placed with vertical and horizontal lines, respectively, to avoid linear streaking or missed areas. Both sides of the head and neck were then covered with duct tape, and the patient was instructed on sun and light avoidance. 24 hours later, one side of the face/scalp was randomly assigned to receive treatment with intense pulsed light, and the other side with ambient light. While IPL treatment was given, the contralateral side of the face remained covered with duct tape; then the treated site was covered, and the other site uncovered for treatment with ambient light. After both treatments were complete, both sides were recovered with duct tape and the patient was instructed to avoid sun and bright light for 72 hours. IPL regimen was delivered by Vasculight device (Lumenis, Inc.), with parameters popularized by Gold and colleagues: double pulsing with 20 ms delay, 34J/cm2 fluence, and 8 x 16 mm spot size. All patients were Fitzpatrick skin types 1 to III, and 550 nm cutoff filters were used. Ambient tight exposure was delivered with the patient supine and Ritter minor surgery overhead light (Midmark) positioned 18 inches above the highest point on the face/scalp. Ambient light was provided for 30 minutes, and if upon questioning the patient reported minimal burning sensation, for an additional 15 minutes. Patients were instructed to remove the duct tape 72 hours after light treatment, and wash and emolliate their faces and scalps. Post-operative photographs were taken 1 and 4 weeks after treatment, and double-blinded raters assessed these for erythema, edema, crust, telangiectasia, smoothness, erosions, and apparent AK. Patient self-report of efficacy, comfort, and satisfaction was also elicited.

Summary: At one week, erythema and edema scores for sides treated with ambient light were higher (0.8 units on 7-point ordinal scale) than for sides treated with IPL, and this difference was statistically significant ($p<0.05$). At 4 weeks, there was no statistically significant difference in the number of AK or diffuse photodamage on the ambient light versus IPL sides.

Conclusions: Ambient light appears at least as effective as IPL in activating 5-ALA for treatment of AK. Based on 1 week post-treatment photography, it appears ambient light may actually provide a more potent activation of the photosensitizer than IPL. These findings may suggest that topical 5-ALA PDT for AK may not require specialized light sources, but it is important that light exposure be done under close medical supervision in a physician office to avoid burns and overtreatment.

123

TITLE: Tumors of the Eyelids: A 9 Year Look at 961 Lesions Treated with Mohs Micrographic Surgery

AUTHORS: Justin J. Vujevich, M.D.; Leonard H. Goldberg, M.D.

Purpose: Eyelid tumors are commonly referred for Mohs surgery because tissue conservation is crucial for reconstruction and preservation of periorbital function.

Design: A retrospective review was performed on over 27,000 skin cancers referred for MMS between 1996 and 2006. Data was obtained on tumor location, tumor type, pre-operative size, post-operative size, closure type, and closure length.

Summary: Eyelid tumors represented 3.6% of all tumors referred for MMS. Of the 961 eyelid lesions referred for MMS, 42.2% were located on the inferior eyelid, 31.4% were located on the medial canthus, 15.5% located on the lateral canthus, and 5.9% located on the superior eyelids. After histological determination, 76.7% were basal cell carcinomas, 14.6% were squamous cell carcinomas, 4.5% were squamous cell in-situ carcinomas, 1.5% were melanomas, 1.4% were actinic keratoses, 0.5% were sebaceous carcinomas and 0.8% were other diagnoses. Pre-operative sizes ranged from 2 square mm to 10.75 square mm. Post-operative defects ranged from 4 square mm to 15.6 square mm. Closures were characterized as complex linear or intermediate linear closure (69.5%), advancement flap (7.9%), rotation flap (5.7%), full-thickness graft (4.7%), second intention (4.6%), transposition flap (2.9%), and island pedicle flap (1.7%). For linear closures, the average length was 2.0cm. Pre- and post-operative photographs will also be presented.

Conclusions: MMS is an effective means of treating 961 tumors of the eyelid region, while at the same time minimizing the loss of normal tissue at the tumor margins.

124

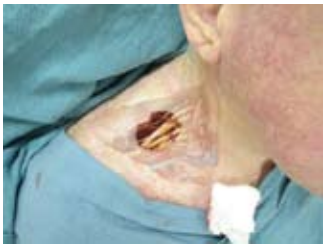
TITLE: Are Oral Quinolones Necessary to Prevent Postoperative Infections of Auricular Second-Intention Wounds?
AUTHORS: Erica A. Mailler-Savage, MD; Hugh M. Gloster, MD
Purpose: To determine if postoperative quinolones are necessary to prevent postoperative infections, especially those caused by Pseudomonas aeruginosa, in auricular second-intention wounds
Design: Prospective randomized trial of 84 consecutive patients who underwent Mohs micrographic surgery for an auricular neoplasm. Following surgery, patients were randomized to receive Levofloxacin 500 mg daily for one week or no treatment. Both groups were instructed to apply topical petrolatum to the wound site.
Summary: Overall, 85.4% of patients had no complication, 12.2% experienced chondritis, 1.2% experienced infection, and 1.2% had both infection and chondritis. No infections with Pseudomonas aeruginosa were observed. No statistical significances were observed between the two treatment groups.
Conclusions: The incidence of postoperative infection with Pseudomonas aeruginosa may be overestimated. Treatment of auricular second-intention wounds with Levofloxacin is not necessary.

125

TITLE: Use of the Tympanoplasty Blade and a Novel Dressing Technique to Facilitate Auricular Surgery
AUTHORS: Deborah F. MacFarlane, MD, MPH
Purpose: Mohs surgeons are not infrequently faced with the challenge of removing tumors from the auditory canal and/or perichondrium. This may prove difficult with the traditional surgical blade. Traditionally used in Head and Neck surgery, the tympanoplasty blade is specially designed so that the blade is angled at 60 degrees, is circular with the bevel down and sharp all around, enabling the surgeon to more easily dissect delicate tissue in such instances. Its small size facilitates working in areas where visualization may be difficult, such as the external auditory canal and nasal vestibule. The disposable blade inserts into a round, knurled stainless steel handle, 5 or 7.5 x 0.5. centimeters diameter, which is ergonomically pleasing and easliy autoclaved. Auricular dressings present a challenge to medical staff and patients alike. The following dressing is simple to perform, stays in place and does not distort auricular anatomy; an especially important consideration where cartilage is exposed. Once the defect has been dressed as usual with anitbiotic ointment and one's non-adhesive dressing of choice, two approximately 10 x 5 centimeter lengths of adhesive tape are cut. The first is positioned so that 3/4 of its surface adheres to the postauricular aspect, the remaining tape protrudes beyond the edge of the ear. The second piece of tape is then placed over the anterior aspect of the ear, and the two pieces of tape are sealed together so that the ear is sandwiched between them. The dressing corners can then be rounded off. The final dresing keeps the ear in its proper anatomical position, provides an occuslive environment, is aesthetic, easily performed and comfortably accomodates eyewear.
Design: Refer above
Summary: Refer above
Conclusions: Refer above

126 LATE-BREAKING

TITLE: Potential Complications of Surgery in the Supraclavicular Fossa
AUTHORS: Carmen D. Campanelli Jr, MD; Yehuda Eliezri, MD; Edward Desciak, MD
Purpose: To describe the surgical anatomy of the supraclavicular fossa and highlight important 'high risk' structures. An exhaustive search of the dermatology text and literature demonstrates no discussion of the anatomical risks of surgery in this area.
Design: We will use a Mohs micrographic case involving the brachial plexus to describe intraoperative surgical anatomy.
Summary: The anatomy of the supraclavicular fossa is poorly described in the dermatology literature. Accurate knowledge of supraclavicular fossa anatomy is essential to avoid serious potential complications. These include injury to the brachial plexus, paresis of the hemidiaphragm and pneumothorax. We describe a case of recurrent basal cell carcinoma in the supraclavicular fossa requiring exposure of the brachial plexus and sacrifice of the suprascapular nerve. We will review anatomy of the supraclavicular fossa including the brachial plexus that may reside as close as 1.5 cm below the skin surface.
Conclusions: The surgical anatomy of the suprclavicular fossa including surgical injuries to the brachial plexus is absent from the dermatology literature. We will present such a case and review the anatomy.Previously Presented : Columbia University Tumor Board



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127

TITLE: Surgical Complications: Beyond the "Terrible Tetrad"

AUTHORS: Ali Hendi, MD

Purpose: Bleeding, infection, dehiscence, and necrosis are the inter-related complications also known as the "Terrible Tetrad". Although these are the most common complications that the dermatologic surgeon may encounter, there are other less common complications worthy of review.

Design: Review of less common complications in dermatologic surgery.

Summary: Suture granuloma can be seen at 1-2 months postoperatively. It is essentially a sterile abscess formed around the buried suture material. Patients often mistake this for tumor recurrence or infection. Awareness by the surgeon and reassurance of the patient are needed. Re-epithelialization arrest (REA), or epidermal arrest syndrome is an uncommon complication that can be problematic if it is not diagnosed. The hallmark of this complication is an open wound on sun-damaged skin that fails to completely re-epithelialize. Awareness of this complication is paramount as it can be easily treated with topical corticosteroids. Neuropraxia is temporary nerve deficit that can be seen in the post operative period. The nerve function returns within 3-6 months. The dermasurgeon needs to be aware of this to avoid early corrective surgery (i.e. a direct brow lift in case of temporal nerve involvement. Alar cartilage distortion can bee seen in any large closure on the nose that involves significant tissue rearrangement. As the cartilaginous framework of the nose is not completely fixed, distortion of the lower alar cartilages can be seen in off-midline vertical closures on the nose. The risk of this complication can be minimized by using skin hooks to visualize the intranasal movement of the alar cartilages prior to reconstruction. Ectropion is a complication that can be caused by improper orientation of closures on the upper cheek. This can be avoided by assuring that the tension vector of the closure is parallel to the lid margins. The lazy-S type closure on the cheek can accomplish this effectively. Oculoplastic referral is helpful in the management of this complication. Entropion is even less common than ectropion. This can be seen in elderly patients with lax eyelids. It is caused by excess upward push on the eyelid. This can be due to a standing cone deformity on the upper cheek / lower lid or post-operative tissue edema. If this does not resolve spontaneously in 1-2 months, oculoplastic referral is warranted.

Conclusions: Suture granuloma, REA, alar cartilage distortion, ectropion, and entropion are less common complications encountered in dermatologic surgery. Prevention and management of these complications is an integral component of the practice of the dermatologic surgery.

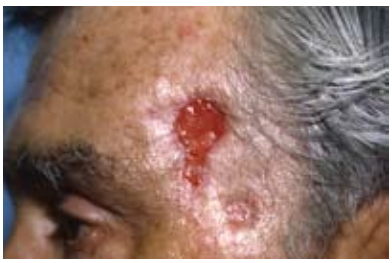


IMAGE:294456_A.jpg
Re-epithelialization arrest

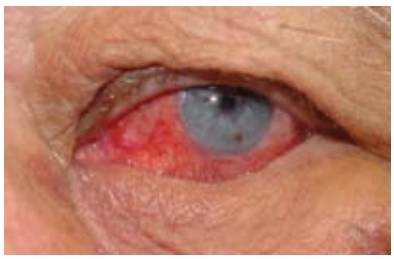


IMAGE:294456_B.jpg
Entropion

128 LATE-BREAKING

TITLE: Staged Excision for Lentigo Maligna (LM) and Lentigo Maligna Melanoma (LMM): A Retrospective Analysis of 111 Cases

AUTHORS: Carole Hazan, M.D.; Steve Dusza, MPH; Ruby Delgado, MD; Klaus Busam, MD; Allan Halpern, MD; Kishwer Nehal, MD

Purpose: Lentigo maligna (LM) and lentigo maligna melanoma (LMM) represent the most common subtype of melanoma of the head and neck in the fair-skinned elderly population. Complete surgical excision remains the treatment of choice with the highest cure rates. The current NIH consensus guidelines for surgical margins based on clinical trial on trunk and extremity cases are 5mm for in situ disease and 1cm for thin melanomas less that 1mm in depth. Poorly defined clinical margins, unpredictable subclinical extension and location in cosmetically and functionally sensitive areas present multiple treatment dilemmas in LM and LMM. Surgical treatment approaches to optimize margin control and tissue conservation and reduce risk of recurrence include Mohs surgery and excision with rush paraffin-embedded permanent sections. Studies have demonstrated that the current recommendations are often insufficient for complete excision. Our objectives were to study the clinical and histologic features of LM and LMM; to describe method of staged technique with rush permanent sections; and to determine the average margin of excision needed to completely excise these lesions

Design: A chart review and retrospective analysis was performed on patients with a biopsy proven diagnosis of MMIS or invasive MM less than 1 mm (arising on sun damaged skin). All patients were treated with staged margin-controlled excisions

with a rush permanent paraffin embedded radial sectioning technique using standard NIH margin guidelines. All cases were performed at Memorial Sloan Kettering in the department of Dermatology between July 2000 and August 2006 by a single author (KSN). Charts were reviewed retrospectively for clinical, histologic and surgical variables. Statistical analyses were subsequently performed to achieve our endpoints.

Summary: In total, 111 patient charts were reviewed. The mean age of the patients studied was 66.1 years. Males made up 62% of the sample. 95.5% of the lesions were located on the head and neck regions. The majority of the tumors (43.2%) were located on the cheek, followed by the nose (14.4%) and the ear (7.2%). A majority of the tumors, 94 (84.7%), were primary, 9 (8.1 %) were recurrent and 8 (7.2%) were incompletely excised. For invasive lesions the median lesion diameter was 1.3cm, while the median diameter for the in-situ lesions was 1.1cm. The majority of the lesions diagnosed prior to the staged excision were MMIS (83 or 74.8%), while 28 (25.2%) were invasive. The mean depth for invasive melanomas was 0.29mm with a SD of 0.13 (n= 26). For MMIS the mean total margin required for complete excision was 7.7mm (SD=1.6) and 9.7mm (SD =1.5) for invasive MM. A statistically significant difference between total margin size and lesion diagnosis was noted ($p = 0.002$). Using a univariate linear regression model with total margin as the outcome, no difference was observed between males and females ($p = 0.18$). In addition, older patients (> 65 years of age) trended toward having larger margins than younger patients (< 65 years of age) ($p = 0.09$). The mean number of stages required to completely excise a lesion was 1.64, with a range from 1 to 5. Fifty-three percent of patients required more than one stage to clear the lesion. Furthermore, 12.6% of MMIS had unsuspected invasion.

Conclusions: Our data suggests that the standard margins of excision are often inadequate in the treatment of LM/LMM in sun-exposed areas. Furthermore, the management of LM/LMM requires consideration of clinical and histologic parameters when assessing the margins. A surgical technique should be used to adequately and completely excise these lesions.

129

TITLE: Use of LET (Lidocaine, Epinephrine, Tetracaine) Gel to Reduce Pain During Mohs Micrographic Surgery

AUTHORS: Richard P. James Jr., MD; John G. Albertini, MD; Mary F. Farley, MD; Paula S. Vogel, MD

Purpose: The purpose of this study is to investigate whether patients undergoing Mohs micrographic surgery will have a decrease in pain with the application of topical LET (mixture of lidocaine, epinephrine, and tetracaine in a gel vehicle) between stages of Mohs micrographic surgery.

Design: An IRB approved, randomized, double-blind, prospective, placebo-controlled intervention trial of topical LET gel application between stages of Mohs micrographic surgery was conducted. A sample of 65 patients were randomized and double blinded to receive either LET gel or placebo. The LET gel was prepared by the pharmacy with the following concentrations: lidocaine 4%, epinephrine 1:1000, and tetracaine 0.5%. The initial placebo was epinephrine 1:1000 in a gel vehicle and was later modified to be a true placebo of gel vehicle only. All patients received initial local injection of 0.5% buffered lidocaine as per standard of care for the first stage of the procedure. The patient's pain from injection of the 0.5% buffered lidocaine solution was measured using the visual analog scale pain score. Following the initial Mohs stage, the wound was covered with a cotton ball saturated with 1-3ml (depending on wound size) of LET gel or placebo gel according to a randomization table. The cotton ball was then covered with a gauze pad and taped over the wound with gentle pressure. After tissue processing and slide interpretation was completed, the patient's dressing and cotton ball was removed. Within 5 minutes of the removal of the anesthetic or placebo impregnated cotton ball the wound margin was probed with a 27 gauge needle. The patient's pain was measured again using a 10 cm linear visual analog scale pain score. On a 10cm linear visual analog scale 0 corresponded to no pain at all and 10 corresponded to the worst possible pain. This method of pain measurement has been previously studied and validated.

Summary: Patients and investigators were blinded and patients were randomized into a placebo gel group (N=12), an epinephrine gel group (N=27), and a LET gel group (N=26). VAS pain scores were recorded at baseline after infiltration with buffered lidocaine solution and before the application of placebo gel (mean score 3.9), epinephrine gel (mean score 3.1), or LET gel (mean score 3.0). All patient groups then had their wounds covered with their respective placebo gel, epinephrine gel, or LET gel impregnated gauze and dressing. After slide preparation and interpretation, the patients' dressings were completely removed and the wound margin was probed with a 27 gauge needle and VAS pain scores recorded. The mean values of the VAS pain scores in the placebo group were 3.1, in the epinephrine gel group 0.5, and in the LET group 0.1. (Table 1). There was a statistically significant difference between the placebo group and the epinephrine and LET groups (Tukey test, $p<0.05$). There was no statistically significant difference between the epinephrine and LET groups (Tukey test, $P>0.05$). Although the lowest mean VAS pain score after treatment was in the LET group, it was not statistically different from the epinephrine group.

Conclusions: LET gel is more effective than placebo gel at reducing pain during Mohs micrographic surgery as measured with a Visual Analog Scale pain score. The Mohs procedure can take many hours to complete due to the tissue processing and interpretation time as well as any time delay prior to reconstruction. This study demonstrates the statistically significant benefit of LET gel at reducing patient pain during the prolonged time period of the Mohs procedure. The study also demonstrates that

epinephrine only gel is superior to placebo (vehicle only) gel, also reaching statistical significance. There was no statistically significant difference between the LET group and the epinephrine group, which indicates that epinephrine plays a significant function. The vasoconstrictive properties of epinephrine prolong the anesthetic effects of lidocaine which is of benefit for maintaining prolonged anesthesia. LET gel has been used extensively in the emergency treatment of lacerations, particularly in the pediatric population with proven efficacy and safety. We describe an effective and safe method of improving and prolonging local anesthesia during Mohs micrographic surgery utilizing a LET (Lidocaine, Epinephrine, Tetracaine) gel.

Table 1. VAS Pain Score as a function of treatment and time

Descriptive Statistics				
	Study Group	Mean VAS Pain Score	Standard Deviation	N
VAS score - before gel	Placebo gel	3.9	2.4	12
	Epinephrine gel	3.1	2.3	27
	LET gel	3.0	2.0	26
	TOTAL	3.2	2.2	65
VAS score - after gel	Placebo gel	3.1	2.4	12
	Epinephrine gel	0.5	1.1	27
	LET gel	0.1	0.3	26
	TOTAL	0.8	1.7	65

130

TITLE: Intraoperative Relaxing Incisions (IORI) in Mohs Micrographic Surgery
AUTHORS: Rungsima Wanitphakdeedecha, MD; Teris M. Chen, MD; Michael R. Migden, MD; Tri H. Nguyen, MD
Purpose: Mohs sections from anatomic locations with thicker skin may be a challenge to prepare for histologic examination by the Mohs micrographic technique. The authors describe an intraoperative in vivo technique to facilitate tissue preparation in this instance.
Design: After scoring and before excising the Mohs section, relaxing incisions should be made within the outlines of the Mohs section. These relaxing incisions should be angled in the direction of anticipated flattening of the tissue.
Summary: Figure 1 IORI Figure 2 Two Mohs sections from the left and right ala are compared, one with (left) and one without (right) IORI
Conclusions: IORI facilitate tissue flattening for Mohs processing, especially for thicker specimens. Tissue that would otherwise require division into smaller sections and/or additional tissue processing may now be processed as a single section, thereby optimizing tissue and margin integrity.

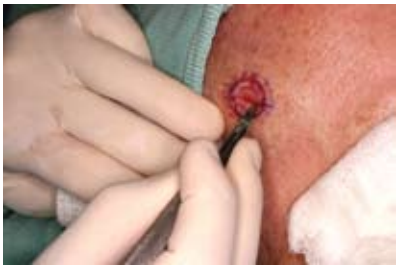


IMAGE:294854_A.jpg
Figure 1 Intraoperative relaxing incisions

IMAGE:294854_B.jpg
Figure 2 Two Mohs sections from the left and right ala are compared, one with (left) and one without (right) intraoperative relaxing incisions

131

TITLE: Atypical Dermatofibromas of the Face
AUTHORS: Angela Hutcheson, MD; Katerina G. Chiller, MD
Purpose: To discuss two patients and a review of the literature concerning atypical dermatofibromas on the face.
Design: Here we present the clinical presentations, histology and management of two patients with atypical facial DF/BFHs, using the Mohs micrographic technique. A relevant review of the literature will be discussed.
Summary: While dermatofibromas (DFs) are common lesions typically located on the extremities, DFs are reported to occur only rarely on the face. When DFs do present on the face, they are often unusual histologically and more clinically aggressive. For example, facial DFs tend to infiltrate subcutaneous adipose tissue and striated muscle rather than remain confined to the dermis, which is more characteristic of DFs located in more usual locations. As such, these fibrohystiocytic tumors located on

the face and portraying deeply infiltrating histology can be found in the literature under the nomemclature of benign fibrous histiocytomas (BFH). The first patient was a 45-year-old white woman who presented with a deeply invading and poorly defined DF of the right temple. The lesion was noted to invade the subcutaneous adipose tissue and striated muscle. Our second patient was a 60-year-old black woman who also presented with an atypical DF of the left cheek which had significant subcutaneous infiltration. Both patients were treated with Mohs micrographic surgery and repaired with local flaps.
Conclusions: Review of the literature reveals that facial DFs/BFH are relatively rare, and require wider excisional margins than expected when compared with DFs which occur on the extremities due to the infiltration of subcutis and deeper structures, poor circumscription, and an increased local recurrence rate. Extirpation of these lesions with Mohs offers the advantages that Mohs has with cutaneous malignancies such as histologic visualization of the margins, the potential for smaller defects, and will theoretically also offer lower recurrence rates.

132

TITLE: Vascular Clips for Controlling Intraoperative Bleeding during Mohs Micrographic Surgery
AUTHORS: Richard Krathen, MD; Heidi Donnelly, MD
Purpose: Large-caliber vessels are frequently encountered during Mohs micrographic surgery on the head and neck and often must be transected to clear the tumor. Surgeons traditionally use figure-of-eight sutures to tie off bleeding vessels after they are identified. We describe the use of a stainless steel vascular clip (Ligaclip, Ethicon) to control bleeding from these vessels as an easier and faster alternative to suture.
Design: The bleeding vessel is identified, clamped with a hemostat, and a vascular clip is then applied. These small metal clips may be safely left inside the patient after the procedure.
Summary: Patients seen for Mohs micrographic surgery with tumors on the head and neck near the path of a named large-caliber vessel are identified prior to surgery. These vessels are frequently encountered during the second stage or later if the deep margin continues to show tumor present, and may be transected during tumor extirpation. A Ligaclip may then be applied to an actively bleeding vessel after it is clamped with a hemostat. Any clips that remain on the Mohs section must be removed before processing. This vascular clip is applied more quickly than suture to a bleeding vessel. In addition, using suture to tie off a vessel may pierce the vessel again, causing further bleeding, which does not occur with the Ligaclip.
Conclusions: Vascular clips provide an efficient way to obtain good hemostasis when large named vessels must be sacrificed during Mohs micrographic surgery.

133

TITLE: Fillers for Post-Surgical Depressed Scars After Skin Cancer Reconstruction
AUTHORS: Aradhna Saxena, M.D.; David Kasper, MS IV, MBA; Greg S. Morganroth, M.D.; Joel L. Cohen, MD
Purpose: Traditional scar revision has addressed thickness with corticosteroids, superficial contour with dermabrasion or re-surfacing, and post-repair erythema with laser therapy. With the introduction of fillers to the dermatologic surgeon's armamentarium, we now can address deeper contour changes.
Design: A series of 6 patients underwent Mohs Micrographic Surgery (MMS) followed by reconstruction. Post-operatively, irregularities in contour were re-shaped with filler agents. The patient tolerance of the procedure, satisfaction with the outcome, and complications were evaluated on the basis of retrospective chart review, investigator observation, and digital images.
Summary: A variety of filler agents can be used to enhance post-surgical scars.
Conclusions: Using filler agents, we have experienced tremendous success in enhancing cosmetic outcomes after mohs micrographic surgery and reconstruction, while increasing patient satisfaction.

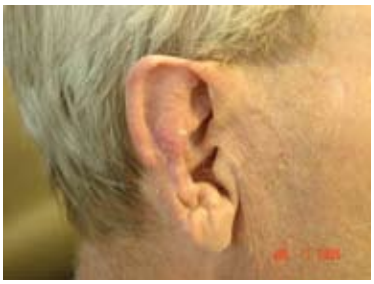


IMAGE:294811_A.jpg
R superior helix and R mid helical rim status post mohs surgery and reconstruction with full-thickness skin grafts

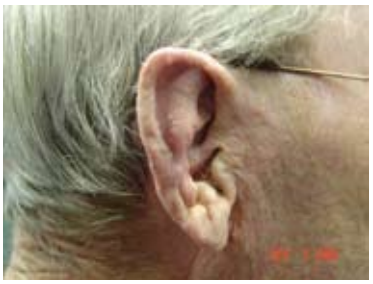


IMAGE:294811_B.jpg
Enhanced right ear contour and shape after 0.3 cc total calcium hydroxylapatite injected

134

TITLE: Bleeding Complications and Perioperative Anticoagulation in Cutaneous Surgery

AUTHORS: A. Yasmine Kirkorian, BA; Ellen S. Marmur, MD

Purpose: Our aim is to present a summary of the incidence of bleeding complications occurring in anticoagulated patients perioperatively during cutaneous surgery.

Design: A questionnaire surveying physician experience of bleeding complications was sent to 700 dermasurgeons, members of the American College of Mohs Micrographic Surgery and Cutaneous Oncology. The questions investigated physicians' experience with the following: (1) number of procedures performed yearly (2) continuation or discontinuation of aspirin, clopidogrel, aspirin and clopidogrel, non-steroidal anti-inflammatory drugs (NSAIDs), warfarin, vitamin E and herbal supplements (3) bleeding complications associated with these agents (4) the influence of the literature on physician decision-making (5) the involvement of other physicians in determining how to manage the patient.

Summary: Twenty-three percent of dermasurgeons responded to the questionnaire. Our results are pending both quantitative and qualitative analysis. Our quantitative data will be integrated with our data from our most recent survey entitled "Perioperative Management of Anticoagulant Therapy During Cutaneous Surgery: 2005 Survey of Mohs Surgeons." Our qualitative data will be used to explain the trends seen in the management of anticoagulation perioperatively in the context of risk for bleeding complications.

Conclusions: We expect to report a trend of minor bleeding complications that do not compromise surgical outcome and to argue for the continuation of anticoagulation perioperatively.

135

TITLE: Photoacoustic Imaging of In-Vivo Suspected Melanoma and Ex-Vivo Pathologic Correlation

AUTHORS: Jeff Petersen, MD; Margaret Mann, MD

Purpose: Photoacoustic imaging is a revolutionary technology that allows three dimensional visualization into the skin. This new technology uses laser light and sound to produce in vivo images of cutaneous structures. The three dimensional resolution can produce striking images to depths of 3mm and greater.

Design: Photoacoustic images are taken of clinical lesions that are felt to be melanomas. The lesions are then excised and sent to pathology. Lesion depth is compared in vivo and in vitro, as well as demonstrating three dimensionaly tumor extent.

Summary: Photoacoustic imaging provides a unique look into the skin. Other technologies such as confocal microscopy have been limited by their ability to penetrate into the skin. This limitation has been overcome and a new frontier of in vivo evaluation of the skin has begun as is shown with these unique images.

Conclusions: Photoacoustic imaging is a new technology that allows one to see into the skin and see lesions in three dimensions. It should one day become a valuable tool in field of dermatology.

136

TITLE: Relative Risk of Nonmelanoma Skin Cancer in Patients With Multiple Simultaneous Solid Organ Transplants: A Retrospective Case-Control Study

AUTHORS: Simon Yoo, MD; Lucile White, MD; Michael Abecassis, MD MBA; Murad Alam, MD

Purpose: Diabetics and patients with hepatorenal syndrome are increasingly likely to receive kidney-pancreas or kidney-liver transplants respectively. Increasingly, advances in transplantation have made it feasible to replace multiple organs at the same time. The purpose of this study was to compare the incidence of nonmelanoma skin cancer post-transplantation in patients who simultaneously received 2 or more solid organs versus patients who received only a single transplant.

Design: Retrospective case-control study at academic urban medical center with large organ transplantation service. IRB-authorized chart and database review was used to identify 32 patients who had received 2 simultaneous organ transplants, predominantly either kidney-pancreas or liver-pancreas transplants. For each such case, there was selected a single ag,e and sex-, and Fitzpatrick skin-type matched control who had undergone a single transplant of one of the same organs within the same calendar year. Incidence of basal cell and squamous cell carcinoma in both case and control subjects was compared from the time of transplant to the August 2006; patient self report elicited by telephone or personal interview was verified by medical records, including chart notes, biopsy reports, and operative reports, from the Northwestern University Transplant Skin Cancer Clinic, which routinely follows all post-transplant patients from the institution who live in greater Chicago. Further, patient report of skin cancer history at the time of transplantation was compared.

Summary: Four of the patients in the double transplant group showed a median of at least 1 skin cancer per year following transplantation compared to only 1 patient in the single transplant group. Overall, it was difficult to ascertain the relative risk of skin cancer associated with double-transplantation as such transplants were relatively recent, and post-transplant incidence of skin cancer is known to correlate significantly with time since transplant.

Conclusions: Simultaneous transplants of multiple organs do not appear to be associated with a much increased incidence of nonmelanoma skin cancer. However, it is possible that increased immunosuppression associated with multiple transplants may eventually result in increased skin cancer risk as time from transplantation

137

TITLE: Recurrent Basal Cell Carcinoma of the Scalp with Bony Invasion: A Diagnostic Clinical Hallmark
AUTHORS: Suneeta S. Walia, M.D.; David E. Kent, M.D.
Purpose: To demonstrate a diagnostic clinical hallmark of bone invasion due to a basal cell carcinoma. The clinical hallmark of bone pitting will be demonstrated and salient features discussed.
Design: Case report
Summary: Basal cell carcinoma is the most common type of nonmelanoma skin cancer and may present with one or more well-recognized growth patterns such as superficial, nodular, micronodular, morpheaform and basosquamous. Aggressive forms such as the morpheaform, infiltrating and basosquamous variants, and neglected recurrent lesions may pose considerable therapeutic challenges. We present a case of recurrent basal cell carcinoma of the scalp that on physical examination was fixed to deeper structures and upon subsequent Mohs micrographic surgery demonstrated classic signs of bone invasion: bone pitting. This case illustrates a diagnostic clinical hallmark for bone involvement from an overlying nonmelanoma skin cancer.
Conclusions: Bone pitting is a clinical hallmark suggesstive of bone invasion that every Mohs surgeon should recognize.

138

TITLE: The Utility of the Bilobe Flap: Distal Nose and Beyond
AUTHORS: Joel L. Cohen, MD; Jamison Strahan, MD
Purpose: Traditionally, we think of the bilobe flap as a workhorse flap for distal nasal defects. This review will not only look at distal nasal defects with and without cartilage, but will primarily focus on other areas where this closure can be useful in repairing skin cancer defects.
Design: The mechanics of performing a bilobe flap in various areas will be reviewed. Of particular interest will be large cheek defects as well as extremity and proximal nasal defects. Photographs of each skin cancer defect, immediate closure and longterm follow-up will be shown.
Summary: The bilobe flaps can provide an excellent option for repairing skin cancer defects not only on the distal nose, but also at other sites.
Conclusions: The bilobe flap has utility beyond just the distal nose in repairing skin cancer defects.

139 LATE-BREAKING

TITLE: Characteristics of Lentigo Maligna Treated in a Mohs Practice and Predictive Factors for Invasion
AUTHORS: Priya Zeikus, MD; Suzanne Olbricht, MD
Purpose: Lentigo maligna is traditionally recognized as a slow growing in situ lesion that rarely progresses to invasive melanoma. Treatment regimens for lentigo maligna vary widely from watchful waiting to Mohs surgery, as the behavior of these lesions is not well understood.
Design: This study is a retrospective review of lentigo maligna treated by slow Mohs surgery. The purpose of this study is twofold: (1) To examine characteristics of lentigo maligna treated in a Mohs surgery practice and (2) to examine cases of lentigo maligna found to be invasive only after surgery was performed and to determine whether certain predictive factors exist that will help guide screening and earlier treatment of these invasive lesions.
Summary: Our data consists of 83 lentigo maligna cases; of which 10 patients were found to have an invasive component only after Mohs surgery was performed.
Conclusions: In general, the invasive lesions were most often found on the cheek and forehead, and had much larger preoperative sizes as compared to other non-invasive cases. Also, postoperative defect sizes were much larger in these cases than those that which did not have an invasive component. The number of Mohs stages, anatomical side of lesions (left vs right vs center), history of prior treatment, and patient demographics were very similar to characteristics of those patients with non-invasive lentigo maligna lesions. Specific statistical analysis of this data will be presented.Previously Presented : The data of this study has not been previously presented.Submitted for Future Meeting: This data has not been submitted for other future meetings.

140 LATE-BREAKING

TITLE: Plaque-Type Syringomata Mimicking Microcystic Adnexal Carcinoma: A Report of Two Cases
AUTHORS: Matthew C. McClelland, MD; Pitiporn Suwattee, MD; Valda N. Kaye, MD; Peter K. Lee, MD, PhD
Purpose: Syringomata are common adnexal tumors with eccrine ductal differentiation, often presenting as multiple small skin-colored papules of the lower eyelids and cheeks of women. While these tumors are easily recognized, the rare plaque-type variant may be mistaken for other cutaneous neoplasms. Clinically and histologically, this subtype may resemble morpheaform basal cell carcinoma (MBCC), desmoplastic trichoepithelioma (DTE), and microcystic adnexal carcinoma (MAC). However, because plaque-type syringomata follow a clinically benign course, differentiation from these more aggressive tumors, including MAC, is essential.

Summary: Two patients presented with extensive indurated skin-colored plaques of the central face. One patient, a 61-year-old Caucasian male, had plaques involving much of the face, including the upper cutaneous lip, bilateral cheeks, and lower eyelids. Similarly, a 78-year-old Caucasian female presented with an infiltrative 1.5 cm skin-colored plaque on the nasal bridge. Upon closer inspection, the plaque appeared to involve most of the forehead, the upper and lower eyelids, and the cheeks bilaterally. In addition to these findings, both patients had asymptomatic 1-3 mm skin-colored papules scattered on the face, which focally seemed to coalesce to form the plaques. The diagnosis of MAC was initially favored in both cases due to the widespread, infiltrative nature of the plaques and preliminary histopathologic evaluation. With such extensive involvement of the face, consultation was sought prior to pursuing aggressive surgical measures. Further review of the clinical and histologic features led to the final diagnosis of plaque-type syringoma in both cases.
Conclusions: Plaque-type syringomata may mimic other cutaneous tumors, including DTE, MBCC, and MAC. Clinically, the presence of multiple skin-colored papules in association with indurated plaques may be suggestive of plaque-type syringoma, while a single infiltrative plaque without individual papules is more likely to represent MAC. The superficial dermal component of syringomata may be indistinguishable from MAC; differentiating histologic features of MAC include deep dermal and subcutaneous growth and perivascular or perineural involvement. Careful clinical and histologic evaluation is crucial in order to avoid unnecessary, potentially disfiguring surgical procedures, as demonstrated in these two cases.

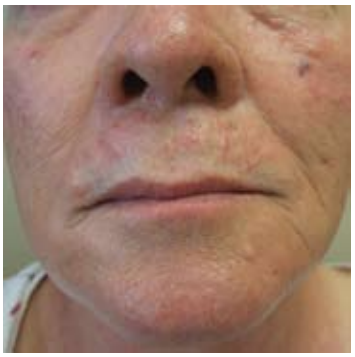


IMAGE:340195_A.jpg
61-year-old Caucasian male with an infiltrative skin-colored plaque of the upper cutaneous lip.

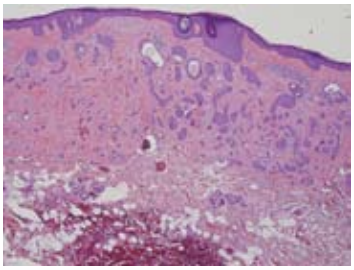


IMAGE:340195_B.jpg
Histopathology from the same patient showing solid and cystic nests of double-layer cuboidal cells scattered within sclerotic collagen in the superficial and mid dermis.

141 LATE-BREAKING

TITLE: The Flipped Island Pedicle Flap: A New Twist on An Old Favorite
AUTHORS: Brad Kovach, M.D.; Roberta Sengelmann, M.D.
Purpose: Background: The island pedicle flap, also known as the V-to-Y or kite flap, is a type of advancement flap commonly used in cutaneous reconstruction. Island pedicle flaps derive their blood supply from an underlying subcutaneous pedicle. The triangular flap is freed at its 3 peripheral borders from dermal and epidermal restraints and remains attached only by its underlying pedicle. When properly designed, island pedicle flaps are hearty with a predictable blood supply. The linear motion of traditional island pedicle flaps is limited by its vascular pedicle which acts as a "leash" connecting the overlying flap to the subcutaneous tissues at the donor site. Objective: We present a modification, which we term the "flipped island pedicle flap", that further extends the versatility of this flap.
Design: Technical aspects to the design and execution of the flipped island pedicle flap are discussed through presentation of examples from our practice used to reconstruct post-Mohs surgery defects in multiple locations including the nasal ala, cheek, oral commissure, and dorsal hand.
Summary: The triangular skin flap is freed from its lateral epidermal and dermal attachments and rotated up to 180 degrees on its underlying vascular pedicle, typically located at the leading edge of the flap. Such rotation allows re-direction of the flap in a non-linear trajectory, permitting coverage of defects oriented at oblique angles to the donor site of the flap. Similarly, by placing the pedicle at the leading edge of the flap and rotating upon that pedicle, we have found that greater extension is possible than with traditional island pedicle flaps. One potential concern when designing this flap is compromise of the vascular supply due to torque created by twisting the pedicle. Ischemia can be avoided by leaving an adequate pedicle of greater than approximately one-quarter the area of the overlying flap, and including subcutaneous vessels and muscle. Similar to traditional island pedicle flaps, fullness, or "pincushioning", of the flipped island pedicle flap can be minimized by undermining the recipient wound margins, slightly undersizing the flap, and insetting the flap slightly below the surrounding wound margins.
Conclusions: The flipped island pedicle flap is a modification of the traditional island pedicle flap that further extends its versatility and can provide excellent cosmetic and functional results.Previously Presented : NoSubmitted for Future Meeting: No

142 LATE-BREAKING

TITLE: Translational Significance of Microarray on Actinic Keratoses

AUTHORS: Sheldon Sebastian, M.D.; R. Steven Padilla, M.D., MBA; Gavin Pickett, PhD

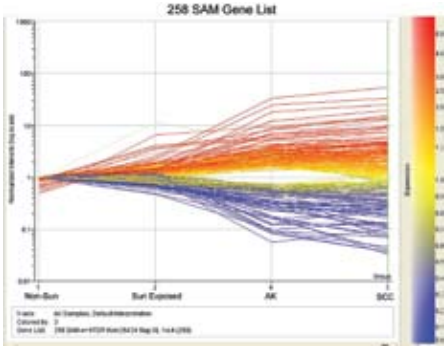
Purpose: To evaluate the molecular pathology and gene networks of actinic keratoses (AK) in the spectrum of cutaneous squamous cell carcinomas (SCC).

Design: Patients were identified as having cutaneous SCC, informed of the study and consented. Biopsies were performed on non-sun-exposed skin, sun-exposed skin, AK, and SCC. A portion of tissue was sent for histological confirmation, and the remainder was processed for microarray analysis according to industry protocol. Microarray studies were performed on all of the RNA samples with the Affymetrix HGU133 2.0 PlusGeneChip using standard protocols as recommended by the manufacturer (Affymetrix, Santa Clara, CA, USA; starting material 1ug total RNA). Stained chips were scanned on a Gene Array Scanner (Agilent, Palo Alto, CA, USA), and data files were processed by GeneChip software (Microarray Suite, Affymetrix).

Summary: Non-melanoma skin cancers are on the rise worldwide. While they are generally not life-threatening, cutaneous squamous cell carcinoma (SCC) can cause significant morbidity and mortality. Abnormal gene expression in SCC is well known, however the question of whether actinic keratoses (AK) represent a pre-cancerous condition is unclear. To better understand the molecular pathology and gene networks of AK in the spectrum of cutaneous squamous cell carcinomas; our research measured the overall pattern of gene expression in the progression from normal skin to actinically damaged skin and ultimately to SCC. We evaluated skin biopsies from 5 human patients. Each lesion was assessed clinically by a board-certified dermatologist, biopsied, and confirmed histologically by hematoxylin and eosin staining. The biopsies consisted of specimens from normal non-sun-exposed skin, normal sun-exposed skin, actinic keratosis, and SCC. High-density gene expression microarrays were used to measure over 54,000 mRNAs. Using the Statistical Analysis of Microarray (SAM) algorithm we identified thousands of statistically significant genes that were differentially expressed in our AK samples. Of these, the top 258 genes (false discovery rate < 1 gene) are now being investigated. Grossly, our data reveals a direct correlation of abnormal gene expression from normal skin to AK to SCC (Fig. 1), supporting previous histological observations that actinic keratoses are indeed pre-cancerous. Analytical tools will allow us to evaluate individual genes, specific gene networks (Fig. 2) and eventually detailed molecular pathways that may potentially lead to precise biomarkers of pre-cancerous skin lesions. In time, this research will help to establish gene targets for therapeutic interventions.

Conclusions: Our data shows a direct correlation of abnormal gene expression as keratinocytes progress from normal skin to AK to SCC. This supports the notion that actinic keratoses are pre-cancerous.

IMAGE:344473_A.jpg



Change in gene expression from non-sun-exposed skin, to sun-exposed skin, to AK, to SCC.

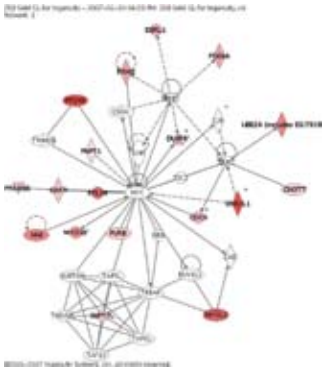


IMAGE:344473_B.jpg
Example of gene network extracted from our data set, indicating the pathway associated with the c-myc tumor suppressor gene.

143 LATE-BREAKING

TITLE: Full Thickness Skin Graft (FTSG) Repair for Lower-Extremity (Below Knee) Tumors Treated by Mohs Micrographic Surgery (MMS)

AUTHORS: Monika Srivastava, MD; Brian Jiang, MD

Purpose: The purpose of this study was to evaluate the efficacy and success of FTSGs to repair lower extremity defects following Mohs micrographic surgery.

Design: The study design was based on a retrospectice review of FTSGs used to repair lower extremity defects following MMS. All patients were treated in the Dermatologic Surgery unit at the Beth Israel Deaconess Medical Center between April 2002 and August 2006. Primary outcome was full versus partial, versus no take of the graft. Other data collected included graft infection, hematoma formation, graft hypertrophy, and graft contracture.

Summary: There were a total of 45 FTSG repairs performed on the lower extremities following MMS. Patient ages ranged from 41-97 years. Tumor types included basal and squamous cell carcinoma. Graft sizes ranged from 1 cm2 to 16.8 cm2. Of the 45 total FTSG repairs performed, 22% exhibited some level of graft failure: 6 demonstrated superficial epidemal sloughing, 3 had only partial survival, and 1 had no survival. Thirty-five (78%) demonstrated full survival. Other complications included infection (11%) and hematoma (2.2%). There was no significant graft hypertrophy or contracture. Interestingly even patients who suffered a complication did well with either subsequent full survival of the graft follwoing infection or hematoma or secondary intention healing following graft failure. No complication required additional treatment except for oral antibiotics for infections.
Conclusions: FTSGs are a good option for repairing large lower extremity defects following MMS. The complication rate is low and the most patients do well.

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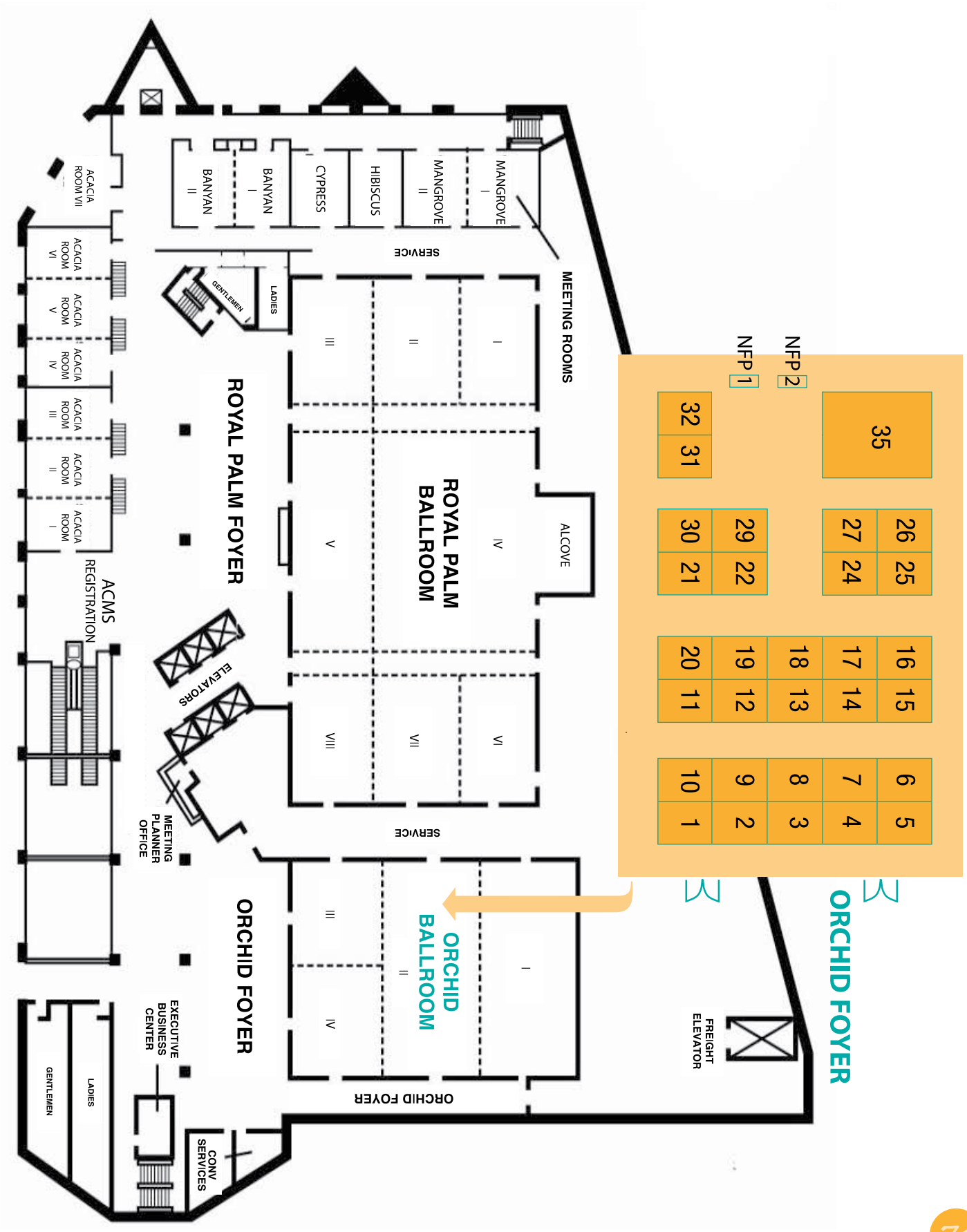

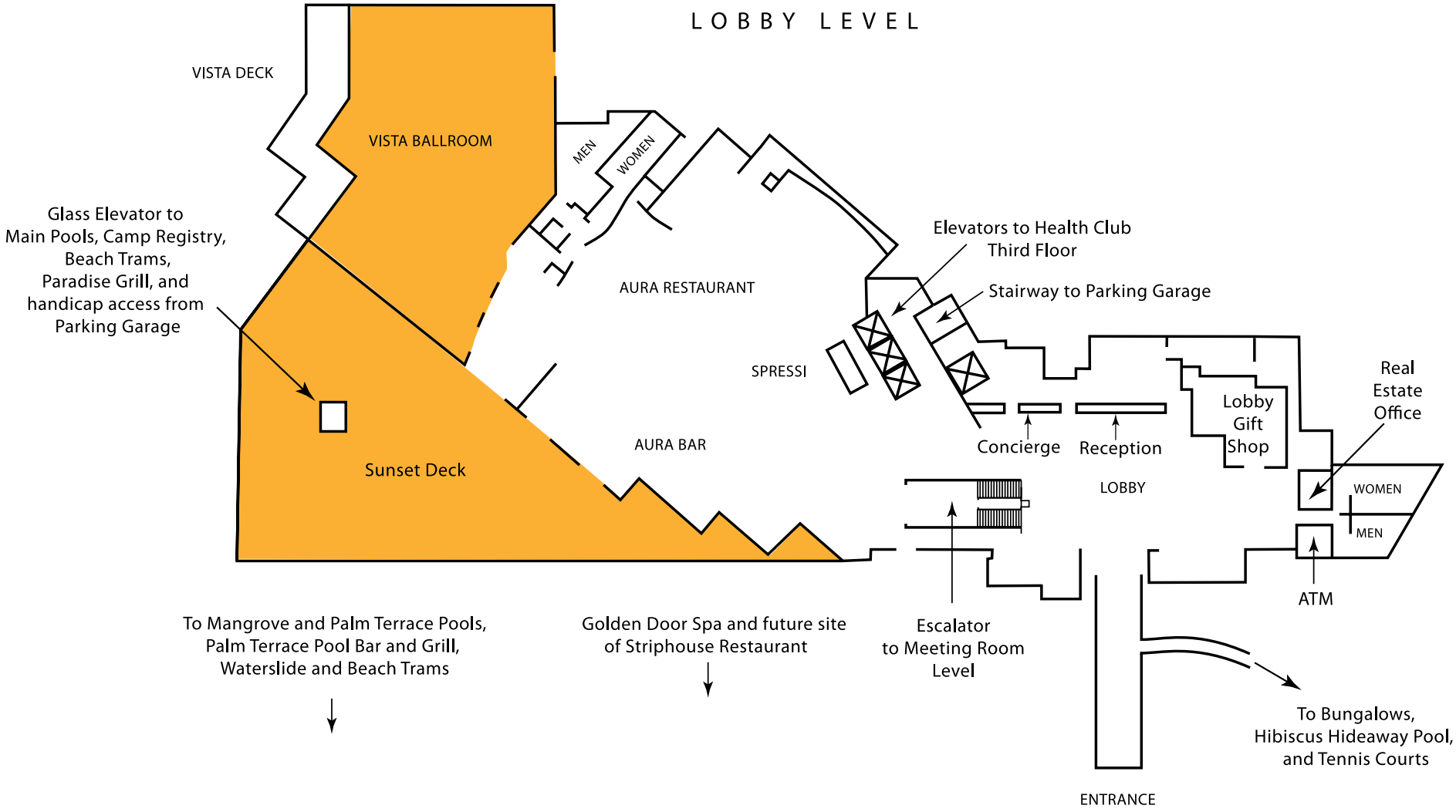
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