

ARCHIVES

OF

OTOLARYNGOLOGY— HEAD & NECK SURGERY

The ARCHIVES OF OTOLARYNGOLOGY—HEAD & NECK SURGERY is a member of the consortium of AMA journals listed below. The complete text of all AMA journals is available online directly from AMA as well as the following aggregators: Dialog Information Services, Proquest, Ovid Technologies, Inc, Gale Research, and EBSCO.

The Journal of the American Medical Association (JAMA)

Archives of Dermatology
Archives of Facial Plastic Surgery
Archives of General Psychiatry
Archives of Internal Medicine
Archives of Neurology
Archives of Ophthalmology
Archives of Otolaryngology—Head & Neck Surgery
Archives of Pediatrics & Adolescent Medicine
Archives of Surgery

The ARCHIVES OF OTOLARYNGOLOGY—HEAD & NECK SURGERY (ISSN 0886-4470) is published monthly by the American Medical Association, 515 N State St, Chicago, IL 60610-0946, and is an official publication of the Association. The ARCHIVES OF OTOLARYNGOLOGY—HEAD & NECK SURGERY reaches more than 12,000 readers in over 80 countries each month. Periodicals postage paid at Chicago, IL, and at additional mailing offices. GST registration number 12622 5556 RT. Canada Post International Publications Mail (Canadian Distribution) Sales Agreement No. 319066.

Printed in the USA.

SUBSCRIPTION RATES—

	Individual Print & Online	Individual Online Only
US	\$220	\$170
Americas	\$275	\$170
Rest of World	£165	£120
	Institution Print & Online	Institution Online Only
US	\$395	\$300
Americas	\$505	\$300
Rest of World	£330	£215

Rates for residents and medical students available.

CHANGE OF ADDRESS—POSTMASTER, send all address changes to ARCHIVES OF OTOLARYNGOLOGY—HEAD & NECK SURGERY, c/o Subscriber Services, American Medical Association, 515 N State St, Chicago, IL 60610. Please notify us of address change at least 6 weeks in advance to ensure uninterrupted service. Include both old and new addresses, a recent mailing label, and new ZIP code. For mailing addresses outside the United States and the Americas, see below.

SUBSCRIPTION INFORMATION—Subscription inquiries for mailing addresses in the US and the Americas: For fastest service, direct inquiries regarding missing issues, address changes, subscription billing, subscription renewal, or back issue purchases as shown below: **AMA members:** Phone: 800-262-3211 between 8:30 AM-4:45 PM CST; Fax: 800-262-3221; E-mail: mcs@ama-assn.org. **Other physicians and nonphysician customers:** Phone: 800-262-2350 or 312-670-7827 (same hours as above); Fax: 312-464-5831; E-mail: ama-subs@ama-assn.org. Mail inquiries should be directed to the Unified Service Center, American Medical Association, PO Box 10946, Chicago, IL 60610-0946. For mailing addresses outside the US and the Americas: Contact JAMA and Archives Journals, American Medical Association, Tower House, Sovereign Park, Market Harborough, Leicestershire LE15 9EF, UK. Phone: +44 (0) 1858-438880; Fax: +44 (0) 1858-434958; E-mail: ama@subscription.co.uk.

REPRINTS—Authors place their reprint order at the time the edited typescript is reviewed and should allow 4 to 6 weeks for delivery following publication. Requests for individual reprints should be sent directly to the author at the address shown in the article.

For bulk reprint orders for distribution by commercial organizations, please contact Wanda Bartolotta, 2441 84th St, Brooklyn, NY 11214. Phone: (718) 946-7424. Fax: (718) 946-7372. E-mail: wanda_bartolotta@ama-assn.org. For reprint orders in limited quantities for distribution by educational organizations and for author reprints, please contact Reprints Coordinator, 515 N State St, Chicago, IL 60610. Phone: (312) 464-4594. Fax: (312) 464-4849.

PERMISSIONS—Contact Rhonda Bailey, Permissions Assistant, 515 N State St, Chicago, IL 60610. Phone: (312) 464-2513.

ADVERTISING PRINCIPLES—Each advertisement in this issue has been reviewed and complies with the principles governing advertising in AMA scientific publications. A copy of these principles is available on request. The appearance of advertising in AMA publications is not an AMA guarantee or endorsement of the product or the claims made for the product by the manufacturer.

WORLD WIDE WEB ADDRESS—<http://www.ama-assn.org>

OTOLARYNGOLOGY HOME PAGE—<http://www.archoto.com>

Publication Staff

Offices: 515 N State St, Chicago, IL 60610

Editorial Processing Department

Director: Paula Glitman
Copyediting Manager: Gwen Chaffin
Freelance Copyediting Manager:

Diane L. Cannon

Freelance Copyediting Coordinators:

Lauren B. Fischer

Connie Manno

Editorial Systems Managers:

Paul Frank

Monica Mungle

Systems Programmer/Internet Specialist:

J. D. Neff

Senior Copy Editors:

Dee E. Egger

Vickey Golden

John McFadden

Copy Editors:

Melissa M. Cartwright

Donald S. Smith

Editorial Assistant: Wanda Hill

Circulation & Classified Advertising Division

Director: Curt Reilly

Circulation Processing

Director: Karen Howes

Manager: Alfred Tomaselli

Circulation Development

Director: Bina Oza Trivedi

Managers:

Vida Damijonaitis

Donna Goldman

Michael McGraw

Classified Advertising

Director: Crystal Wells

Manager: Thalia Moss, (800) 262-2260

Scientific Publications & Multimedia Applications

Assistant to the Editor: Helga Fritz

Scientific Online Resources

Director: Margaret Winker, MD

Electronic Media Department Director:

Michelle Kurzynski

Associate Web Editors:

Katherine Behar

Erin M. Giannini

Web Office Manager: Marla A. Hall

Advertising

National Sales Director:

Peter J. Murphy

Director, Advertising Sales:

Peter G. Messina

Advertising Office:

East: Philip G. Souleris

119 Cherry Hill Rd, 3rd Floor

Parsippany, NJ 07054

(973) 263-9191

Midwest/West: Alexis O'Connell

515 N State St

Chicago, IL 60610

(312) 464-2470

Publishing Manager: Geoffrey A. Flick

Publishing Operations Division

Division Director: Vanessa Hayden

Directors: Karen Adams-Taylor,

Paul Gasielki

Managers: David Antos, Debbie Camp,

Karl Elvin, Betty Frigerio,

Mary Ellen Johnston, Susan Price,

Charl Richey, Carmela Ware

Production Associates and Specialists

Advertising and Production Services:

LaWanda Brown, Susan Chiara,

Mary Anne Donley, Brian McCartney,

Sarah Powell, Denise Steinhauer,

Ellen Yoshihara

Composition: Rebecca Aiken,

Brenda Chandler-Grayer, Amy Evers,

Fred Furtner, Mary Ann Kuranda,

Sandra Lopez

Database & New Media:

Bruce McGregor (indexer),

Clifford O. Barrett, Gail Barrett,

Regina Brownlee, Rowena F. Dagang,

John Marcinek, La'son Diggs Sledge,

Angela Smits

Distribution: Linda Alexander

Graphics: Joe Amft, Noel Chaparro,

Carolyn Hall, Maria Kowalkowski,

Chris Meyer, JoAnne Weiskopf

Proofreading: Carol Joy Farrell,

Daniel James, Teresa H. Omiotek,

Mary Kay Tinerella,

Barbara Wojtowicz,

Agnes A. Zarkadas



ARCHIVES

OF

OTOLARYNGOLOGY- HEAD & NECK SURGERY

MAY 2002

VOLUME 128, NUMBER 5

PAGES 477-620

ORIGINAL ARTICLES

- Impact of Adenotonsillectomy on Quality of Life in Children With Obstructive Sleep Disorders** 489
Lianne M. de Serres, MD; Craig Derkay, MD; Kathleen Sie, MD; Michael Biavati, MD; Jacqueline Jones, MD; David Tunkel, MD; Scott Manning, MD; Andrew F. Inglis, MD; Joseph Haddad, Jr, MD; Dimitra Tampakopoulou, MD; Alan D. Weinberg, MS
- Multivariate Analyses to Assess Treatment Effectiveness in Advanced Head and Neck Cancer** 497
Urjeet Patel, MD; Edward Spitznagel, PhD; Jay Piccirillo, MD
- Predictors of Perioperative Complications in Head and Neck Patients** 505
D. Gregory Farwell, MD; Dominic F. Reilly, MD; Ernest A. Weymuller, Jr, MD; Deborah L. Greenberg, MD; Thomas O. Staiger, MD; Neal A. Futran, DMD, MD
- Markers for Nodal Metastasis in Head and Neck Squamous Cell Cancer** 512
Robert P. Takes, MD, PhD; Robert J. Baatenburg de Jong, MD, PhD; Martijn J. R. C. Alles, MD; Cees A. Meeuwis, MD, PhD; Henri A. M. Marres, MD, PhD; Paul P. M. Knegt, MD, PhD; Guy Brutel de la Riviere, MD, PhD; Peter C. M. de Wilde, MD, PhD; Wolter J. Mooi, MD, PhD; Jo Hermans, PhD; J. Han J. M. van Krieken, MD, PhD
- Parotidectomy in the Treatment of Aggressive Cutaneous Malignancies** 521
Stephen Y. Lai, MD, PhD; Gregory S. Weinstein, MD; Ara A. Chalian, MD; David I. Rosenthal, MD; Randal S. Weber, MD
- Combined Intraoral and Lateral Temporal Approach for Palatal Malignancies With Temporalis Muscle Reconstruction** 531
J. Dale Browne, MD; Bradford W. Holland, MD
- Treatment of Patients With Spinal Metastases From Head and Neck Neoplasms** 539
Diego A. Preciado, MD; Leslie A. Sebring, MD, PhD; George L. Adams, MD
- The Effect of Noise Exposure in the Presence of Canal Fenestration on the Amplitude of Short-Latency Vestibular Evoked Potentials** 544
Adi Biron, MD; Sharon Freeman, PhD; Jean-Yves Sichel, MD; Haim Sohmer, PhD
- Three-dimensional Imaging of the Inner Ear by Volume-Rendered Reconstructions of Magnetic Resonance Data** 549
Randolf Klingebiel, MD; Nadine Thieme, MD; Dietmar Kivelitz, MD; Christian Enzweiler, MD; Mechthild Werbs, MD; Rüdiger Lehmann, MD
- Serotonin Reuptake Inhibitors for Dizziness With Psychiatric Symptoms** 554
Jeffrey P. Staab, MD, MS; Michael J. Ruckenstein, MD; David Solomon, MD, PhD; Neil T. Shepard, PhD

JAMA
&
ARCHIVES
JOURNALS
American Medical Association

All articles published, including editorials, letters, and book reviews, represent the opinions of the authors and do not reflect the policy of the American Medical Association, the Editorial Board, or the institution with which the author is affiliated, unless this is clearly specified.

Catherine D. DeAngelis, MD, MPH
Editor in Chief, Scientific Publications
& Multimedia Applications

Nawin Gupta, PhD
Group Publisher

Cheryl Iverson
Managing Editor

Michael D. Maves, MD, MBA
Executive Vice President,
Chief Executive Officer

Robert A. Musacchio, PhD
Senior Vice President,
Publishing & Business Services

Copyright 2002 by the American Medical Association. All rights reserved.
Reproduction without permission is prohibited.

The Impact of Atopy on Neutrophil Activity in Middle Ear Effusion From Children and Adults With Chronic Otitis Media 561
David S. Hurst, MD, PhD; Per Venge, MD, PhD

Congenital High Airway Obstruction Syndrome and Airway Reconstruction: An Evolving Paradigm 567
Christopher J. Hartnick, MD; Michael Rutter, MD; Florian Lang, MD; J. Paul Willging, MD; Robin T. Cotton, MD

Prevalence and Risk Factors for Voice Problems Among Telemarketers 571
Katherine Jones, MS; Jason Sigmon, MD; Lynette Hock, MS; Eric Nelson, BS; Marsha Sullivan, MA, CCC-SLP; Frederic Ogren, MD

The Effect of Growth Factors on the Proliferation and Differentiation of Human Nasal Gland Cells 578
Tetsuro Kimura, MD; Yuichi Majima, MD; Yongqing Guo, MD; Toshimichi Yoshida, MD

Bacteriology of Acute and Chronic Frontal Sinusitis 583
Itzhak Brook, MD, MSc

CLINICAL NOTES

Recurrent Inner Ear Decompression Sickness Associated With a Patent Foramen Ovale 586
Christoph Klingmann, MD; Michael Knauth, MD; Stefan Ries, MD; Rolf Kern, MD; Abel-Jan Tasman, MD

Headset-Related Sensory and Motor Neuropathies in Image-Guided Sinus Surgery 589
Peter H. Hwang, MD; Mendy Maccabee, MD; John A. Lindgren, MD

CLINICAL PROBLEM SOLVING: PATHOLOGY

Pathology Quiz Case 1 592
Sam P. Mostafapour, MD; Larry True, MD; Neal D. Futran, DMD, MD

Pathology Quiz Case 2 593
Mukesh Prasad, MD; Jeffrey L. Keller, MD

ARCHIVES

OF
OTOLARYNGOLOGY—
HEAD & NECK SURGERY

Editor:

Michael M. E. Johns, MD
Emory University
Woodruff Health Sciences
Administration Building
Suite 400
1440 Clifton Rd NE
Atlanta, GA 30322

Assistant Editors:

John K. Niparko, MD
Baltimore, Md
William J. Richtsmeier, MD, PhD
Cooperstown, NY
K. Thomas Robbins, MD
Gainesville, Fla

Editorial Assistant:

Trina L. Johns

Production Manager:

Jane Devilbiss
(404) 778-2322
(404) 778-3100 FAX
e-mail: aohns@emory.edu

Editorial Board:

Elliot Abemayor, MD, PhD
Los Angeles, Calif
John G. Batsakis, MD
Houston, Tex
Margaret S. Brandwein, MD
New York, NY
Howard W. Francis, MD
Baltimore, Md
Marvin P. Fried, MD
Bronx, NY
Patrick J. Gullane, MD
Toronto, Ontario
Paul R. Lambert, MD
Charleston, SC
Wayne F. Larrabee, Jr, MD
Seattle, Wash
Marci M. Lesperance, MD
Ann Arbor, Mich
Paul A. Levine, MD
Charlottesville, Va

Robert H. Miller, MD

Las Vegas, Nev
Robert M. Naclerio, MD
Chicago, Ill
Jay F. Piccirillo, MD
St Louis, Mo
Richard J. H. Smith, MD
Iowa City, Iowa
Bevan Yueh, MD
Seattle, Wash

Section Editors:

Continuing Medical Education
Douglas E. Mattox, MD
Atlanta, Ga
Clinical Challenges in Otolaryngology
Karen H. Calhoun, MD
Galveston, Tex
Ronald B. Kupper-Smith, MD (Assistant)
Seattle, Wash

Online Editor

Michael A. Rothschild, MD
New York, NY
Clinical Problem Solving: Radiology
R. Nick Bryan, MD
S. James Zinreich, MD
Baltimore, Md
Clinical Problem Solving: Pathology
Frederic B. Askin, MD
William H. Westra, MD
Baltimore, Md
American Academy of Facial Plastic and Reconstructive Surgery News
Becky McGraw-Wall, MD
Houston, Tex
Maisie Shindo, MD
Los Angeles, Calif
American Head and Neck Society News
David W. Eisele, MD
San Francisco, Calif
American Society of Pediatric Otolaryngology News
Sally R. Shott, MD
Cincinnati, Ohio

CLINICAL PROBLEM SOLVING: RADIOLOGY

Radiology Quiz Case 1 596
Leonard Allmond, BSE;
Andrew H. Murr, MD

Radiology Quiz Case 2 597
Mark A. Zacharek, MD;
Preeti N. Malani, MD;
Carol E. Chenoweth, MD

CLINICAL CHALLENGES IN OTOLARYNGOLOGY

Marginal Mandibulectomy vs Segmental Mandibulectomy: Indications and Controversies 600
Mark K. Wax, MD;
Daphne A. Bascom, MD;
Larry L. Myers, MD

The Role of Marginal Mandibulectomy in the Surgical Management of Oral Cancer 604
Jatin P. Shah, MD, MS(Surg), FRACS

Clinical Commentary on Marginal vs Segmental Resection of the Mandible 605
Eugene N. Myers, MD;
Brian R. Gastman, MD

REGULAR DEPARTMENTS

Call for Photographs 606

ARCHIVES CME 608

CME Announcement 511

Classified Advertising 611

Index to Advertisers 620

Instructions for Authors—See January 2002 issue, page 97, or visit the Web site at www.archoto.com.

About the Cover

Photographer: Jason Klenoff, MD, Hamden, Conn. Maharana Udai Singh II founded Udaipur in 1568. He later began building City Palace, which is viewed here from the middle of Lake Pichola, Rajasthan, a state in northwest India.