

# 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 from Dialog Information Services and Ovid Technologies, Inc.

**The Journal of the American Medical Association (JAMA)**

**Archives of Dermatology**

**Archives of Facial Plastic Surgery**

**Archives of Family Medicine**

**Archives of General Psychiatry**

**Archives of Internal Medicine**

**Archives of Neurology**

**Archives of Ophthalmology**

**Archives of Otolaryngology—Head & Neck Surgery**

**Archives of Pathology & Laboratory Medicine**

**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 11 000 readers in over 80 countries each month. Periodicals postage rates 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.

Official publication for American Academy of Facial Plastic and Reconstructive Surgery, Inc, American Society for Head and Neck Surgery, and American Society of Pediatric Otolaryngology.

**SUBSCRIPTION RATES**—The personal subscription rates for the ARCHIVES OF OTOLARYNGOLOGY—HEAD & NECK SURGERY are \$195 for 1 year (12 issues) in the United States and US possessions; \$245 in the Americas; £145 outside the Americas. The institution rates for 1 year are \$295 in the United States; \$395 in the Americas; £245 outside the Americas. Special rates for residents and medical students are available. Address all subscription communications to: Subscriber Services Center, American Medical Association, PO Box 10946, Chicago, IL 60610-0946. Phone: (800) 262-2350. Fax: (312) 464-5831. E-mail: ama-subs@ama-assn.org. For mailing addresses outside the United States and US possessions, see International Subscription Information.

**CHANGE OF ADDRESS**—POSTMASTER, send all address changes to ARCHIVES OF OTOLARYNGOLOGY, 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 US possessions, see International Subscription Information.

**SUBSCRIBER SERVICES**—For information about subscribing to any of the AMA publications, change of address, missing issues, or purchasing back issues, please contact Subscriber Services Center, American Medical Association, PO Box 10946, Chicago, IL 60610-0946, or call (800) 262-2350 or (312) 670-SUBS (670-7827) between 8:30 AM and 4:30 PM CST. Fax: (312) 464-5831. E-mail: ama-subs@ama-assn.org. For mailing addresses outside the United States and US possessions, see International Subscription Information.

**INTERNATIONAL SUBSCRIPTION INFORMATION**—Subscriptions outside the United States and US possessions are served according to geographic region. Please address correspondence to the following 2 offices based on delivery address: (1) For delivery in North America, Central America, and South America, contact Subscriber Services, AMA, PO Box 10946, Chicago, IL 60610-0946. Phone: (312) 670-7827. Fax: (312) 464-5831. E-mail: ama-subs@ama-assn.org. (2) For delivery outside the Americas, contact JAMA & Archives Journals, Reader Services Centre, PO Box 299, London WC1H 9TD, England. Phone: +44 (0)171-383-6270. Fax: +44 (0)171-383-6402. E-mail: jama-archives@dial.pipex.com.

**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, 500 Fifth Ave, #2210, New York, NY 10110. Phone: (212) 354-0050. Fax: (212) 354-1169. E-mail: wanda\_bartolotta@ama-assn.org. For reprint orders in limited quantities for distribution by educational organizations and for author reprints, please contact Reprint 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,  
Archives Journals**

**Director:** Paula Glitman

**Manager:** Lise M. Stevens

**Freelance Manager:** Diane L. Cannon

**Freelance Coordinators:**

Mark Berthold

Connie Manno

**Electronic Editing Specialist:**

Paul Frank

**Assistant Electronic Editing Specialist:**

Monica Mungle

**Senior Copy Editors:**

Dee E. Egger

Brande Martin

**Copy Editors:**

Keith Huff

John McFadden

Jennifer L. Reddy

**Editorial Assistant:** Wanda Hill

**Scientific Information  
& Multimedia Group**

**Staff Assistant:** Helga Fritz

**Scientific Online Resources**

**Director:** Margaret Winker, MD

**Electronic Media Department**

**Director:** Marty Suter

**Assistant Editors:**

Neil Shankman

Wendi Williams

**Staff Assistant:** Marla A. Hall

**Production & Distribution Division**

**Manager, Budgets & Costs:**

Bonnie Van Clevon

**Publishing Manufacturing Analyst:**

Diane Darnell

**Office Manager:** Karen Branham

**Production Assistant:** Shannon Epplert

**Advertising & Production  
Department**

**Director:** Karen Adams-Taylor

**Production Specialist:** Terri Hanley

**Manager, Advertising Services:**

Carole Piszker

**Manager, Production Services:**

Susan Price

**Supervisor, Production Services:**

Betty Frigerio

**Production Associates:**

Mary Anne Donley

Mari Guizzetti

Sarah Powell

Denise Steinhauser

Jo Anne Turner

**Production Assistant:**

Bryan Irzyk

**Distribution**

**Distribution Manager:** Paul Gasiiecki

**Distribution Analyst:**

Michelle Robinson

**Traffic Control Specialist:**

Victoria Buckner

**Specialty Journal Division Office**

**Assistant to the Publisher:**

Christine Hearne

**Circulation & Content**

**Marketing Division**

**Administrative Assistant:**

Millette Jackson-Bates

**Circulation Processing Department**

**Director:** Beverly Martin

**Subscriber Services Manager:**

Susan Stoken

**Circulation Systems Manager:**

Alfred Tomaselli

**Circulation Specialists:**

Reginald Jordan

Kathryn Osten

**Circulation Development  
Department**

**Director:** Bina Oza

**Circulation Marketing Managers:**

Robert Herling

Audrey Mathies

Timothy Ryan

**Circulation Marketing Specialists:**

Sandra Garzon

Michael McGraw

**Licensing & Permissions Department**

**Director:** Norman Frankel

**Permissions:** Rhonda Bailey

**International Coordinator:** Sharon Ali

**Electronic Production Department**

**Director:** Linda Knott

**Manager, Composition & Pagination:**

Phil Arko

**Electronic Production Specialists:**

Brenda Chandler-Grayer

Heather Crego

Karl Elvin

Amy Evers

Mary Ann Kuranda

Sandra Lopez

**Manager, Graphics:** Charl Richey

**Electronic Imaging Specialists:**

Joe Amft

Noel Chaparro

Carolyn Hall

Maria Kowalkowski

Chris Meyer

JoAnne Weiskopf

**Manager, Proofreading:**

Teresa H. Omiotek

**Proofreaders:**

David Antos

Daniel James

Rachel Novickas

Mary Kay Tinerella

Barbara Wojtowicz

**Manager, Database & New Media:**

Mary Ellen Johnston

**Indexer:** Kathy Gaydar

**New Media Specialists:**

Gail Barrett

Paul Boscoe

Joel Brammeier

Regina Brownlee

La'son J. Diggs

Anne McBride

Melanie Parenti

Angela Smits

**Production Assistant:** Ruth Sprague



# ARCHIVES

OF

## OTOLARYNGOLOGY- HEAD & NECK SURGERY

VOL 125 NO. 10, OCTOBER 1999

### ORIGINAL ARTICLES

- The American Board of Otolaryngology, 1924-1999: 75 Years of Excellence** 1071  
*Robert W. Cantrell, MD; Jerome C. Goldstein, MD*
- Biochemoprevention for Dysplastic Lesions of the Upper Aerodigestive Tract** 1083  
*Vali A. Papadimitrakopoulou, MD;*  
*Gary L. Clayman, MD; Dong M. Shin, MD;*  
*Jeffrey N. Myers, MD; Ann M. Gillenwater, MD;*  
*Helmuth Goepfert, MD; Adel K. El-Naggar, MD;*  
*Jan S. Lewin, PhD; Scott M. Lippman, MD;*  
*Waun K. Hong, MD*
- Use of Topical Ascorbic Acid and Its Effects on Photodamaged Skin Topography** 1091  
*Steven S. Traikovich, DO*
- The Role of Image-Guidance Systems for Head and Neck Surgery** 1100  
*Ralph Metson, MD; Mathew Cosenza, RPh, DO;*  
*Richard E. Gliklich, MD;*  
*William W. Montgomery, MD*
- Electroglottography in the Pediatric Population** 1105  
*Harold A. Cheyne; Roger C. Nuss, MD;*  
*Robert E. Hillman, PhD*
- Surgery for Cervicofacial Nontuberculous Mycobacterial Adenitis in Children: An Update** 1109  
*David E. Tunkel, MD*

- The Microbiology of Recurrent Rhinosinusitis After Endoscopic Sinus Surgery** 1117  
*Neil Bhattacharyya, MD; Lynn J. Kepnes, RNP*
- IgE-Mediated Reactions and Hyperreactivity in Pregnancy Rhinitis** 1121  
*Eva Ellegård, MD; Göran Karlsson, MD, PhD*
- Ten Days' Use of Oxymetazoline Nasal Spray With or Without Benzalkonium Chloride in Patients With Vasomotor Rhinitis** 1128  
*Peter Graf, MD, PhD; Jakob Enerdal, MD;*  
*Hans Hallén, MD, PhD*
- Evolution of the Bacteriologic Features of Persistent Acute Otitis Media Compared With Acute Otitis Media: A 15-Year Study** 1134  
*Natalie Loundon, MD; Gilles Roger, MD;*  
*Hoang Vu Thien, MD; Pierre Bégué, MD;*  
*Erea N. Garabédian, MD*

### CLINICAL NOTES

- Intralesional Cidofovir for Recurrent Respiratory Papillomatosis in Children** 1143  
*Seth M. Pransky, MD; Anthony E. Magit, MD;*  
*Donald B. Kearns, MD; D. Richard Kang, MD;*  
*Newton O. Duncan, MD*
- Venous Valves in the Neck: Implications for Microvascular Free Flap Reconstruction** 1151  
*Joseph L. Edmonds, MD; Janet M. Woodroof, MD;*  
*Douglas A. Girod, MD*

### American Medical Association

Physicians dedicated to the health of America



Copyright 1999 by the American Medical Association. All rights reserved. Reproduction without permission is prohibited.

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.

**E. Ratcliffe Anderson, Jr, MD**  
Executive Vice President,  
Chief Executive Officer

**Lynn E. Jensen, PhD**  
Chief Operating Officer

**Paul J. Blackney**  
Senior Vice President,  
Publishing & Business Services

**Robert L. Kennett**  
Vice President, Publishing

**Peter L. Payerli**  
Publisher

**Peter G. Messina**  
National Sales Manager

**Geoffrey A. Flick**  
Manager, Marketing Services

**Cheryl Iverson**  
Director, Editorial Processing Division

**Vanessa Hayden**  
Director, Production &  
Distribution Division

**James A. Skowrenski**  
Director, Circulation &  
Content Marketing Division

**Advertising Offices: East:** Philip G. Soufleris,  
119 Cherry Hill Rd, 3rd Flr, Parsippany,  
NJ 07054 (973)263-9191.

**Midwest/West:** J. P. Cahill & Associates,  
341 S Waiola Ave, La Grange, IL 60525  
(708) 352-0322.

**AMA Classified Advertising Department:**  
Thalia Moss, 800-262-2260.

**Cricoid Cartilage Necrosis After Arytenoidectomy in a Previously Irradiated Larynx** 1154  
*Georg Mathias Sprinzl, MD; Hans Edmund Eckel, MD; Stephan Ernst, MD; Kambiz Motamedi, MD*

#### **PATHOLOGY FORUM**

**Quiz Case 1** 1158  
*Pamela C. Roehm, MD, PhD; John K. Niparko, MD*

**Quiz Case 2** 1159  
*Jeffrey H. Spiegel, MD; Daniel Sudilovsky, MD*

#### **CLINICAL CHALLENGES IN OTOLARYNGOLOGY**

**Removal of the Inferior Half of the Superficial Lobe Is Sufficient to Treat Pleomorphic Adenoma in the Tail of the Parotid Gland** 1164  
*David Myssiorek, MD*

**Conservative vs Superficial Parotidectomy** 1166  
*Larry J. Shemen, MD, FRCS*

**Conservative vs Superficial Parotidectomy for Benign Lesions of the Parotid Tail** 1166  
*Christian Helmus, MD*

#### **LETTERS TO THE EDITOR**

**Diagnosis of Allergic Fungal Sinusitis vs a Mucocele** 1169  
*Scott C. Manning, MD*

**In Reply** 1169  
*William R. Spencer, MD; Matthew W. Shawl, MD; William R. Reisacher, MD; Barbara A. Zeifer, MD*

**Caution Advised When Using Diluted Phenylephrine Hydrochloride** 1170  
*Michael J. Cunningham, MD*

**In Reply** 1170  
*Jerald S. Altman, MD; Michael S. Hauptert, DO; Ronda A. Hamaker, MD; Walter M. Belenky, MD*

#### **REGULAR DEPARTMENTS**

**ARCHIVES Web Forum** 1140

**Products & Services** 1171

**Classified Advertising** 1172

**Index to Advertisers** 1180

**Instructions for Authors—**  
 See January 1999 issue, page 5, or visit the Web site at [www.archoto.com](http://www.archoto.com).

## **ARCHIVES** OF **OTOLARYNGOLOGY— HEAD & NECK SURGERY**

*Editor:*

**Michael E. Johns, MD**  
 Emory University  
 Woodruff Health Sciences  
 Administration Building  
 Suite 408  
 1440 Clifton Rd NE  
 Atlanta, GA 30322

*Assistant Editors:*

**John K. Niparko, MD**  
 Baltimore, Md  
**William J. Richtsmeier, MD, PhD**  
 Durham, NC

**K. Thomas Robbins, MD**  
 Memphis, Tenn

*Editorial Assistant:*

**Trina L. Johns**

*Production Manager:*

**Teresa Brewton**  
 (404) 778-2322  
 (404) 778-3100 FAX  
 e-mail: [aohns@emory.edu](mailto: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

**Robin T. Cotton, MD**  
 Cincinnati, Ohio  
**Marvin P. Fried, MD**  
 Boston, Mass

**Patrick J. Gullane, MD**  
 Toronto, Ontario  
**Lauren D. Holinger, MD**  
 Chicago, Ill

**Paul R. Lambert, MD**  
 Charlottesville, Va  
**Wayne F. Larrabee, Jr, MD**  
 Seattle, Wash  
**Robert H. Miller, MD**  
 New Orleans, La

*H. Bryan Neel III, MD, PhD*

Rochester, Minn  
**Jay F. Piccirillo, MD**  
 St Louis, Mo  
**Clarence T. Sasaki, MD**  
 New Haven, Conn  
**Richard J. H. Smith, MD**  
 Iowa City, Iowa  
**Fred J. Stucker, MD**  
 Shreveport, La

*Section Editors:*

*Clinical Challenges in Otolaryngology*  
**Karen H. Calhoun, MD**  
 Galveston, Tex  
**Ronald B. Koppersmith, MD (Assistant)**  
 Seattle, Wash  
*Online Editor*  
**Michael A. Rothschild, MD**  
 New York, NY

*Radiology Forum*

**R. Nick Bryan, MD**  
**S. James Zinreich, MD**  
 Baltimore, Md

*Pathology Forum*

**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 Society for Head and Neck Surgery News*  
**David W. Eisele, MD**  
 Baltimore, Md

*American Society of Pediatric Otolaryngology News*  
**Sally R. Shott, MD**  
 Cincinnati, Ohio