

March
1994

The Journal of Laryngology and Otology



Founded in 1887 by Morell Mackenzie & Norris Wolfenden

Edited by NEIL WEIR

Assistant Editors CAROL WENGRAF, RICHARD RAMSDEN, PETER RHÏS EVANS,
DAVID PROOPS, VALERIE LUND, HENRY GRANT, ANDREW JONES & GUY KENYON

Book Review and Abstracts Editor JOHN B. BOOTH

Emeritus Advisor in Pathology IMRICH FRIEDMANN

Advisors in Pathology BRIAN MANNERS, CHRISTOPHER MILROY, KENNETH MACCLELLAN
LESLEY SMALLMAN

Advisor in Audiology LINDA LUXON

Advisors in Radiology GLYN LLOYD & PETER PHELPS

Advisors in Statistics ANTHONY HUGHES & PETER KELLY

Production Editors GILLIAN GOLDFARB & INGA MCKENZIE

Vol 108
No 3

The Journal of Laryngology and Otology

(Founded in 1887 by MORELL MACKENZIE and NORRIS WOLFENDEN)

Edited by NEIL WEIR

Assistant Editors CAROL WENGRAF, RICHARD RAMSDEN, PETER RHÏYS EVANS,
DAVID PROOPS, VALERIE LUND, HENRY GRANT, ANDREW JONES & GUY KENYON
Book Reviews and Abstracts Editor JOHN B. BOOTH

Production Editors GILLIAN GOLDFARB & INGA MCKENZIE

INSTRUCTIONS FOR AUTHORS

1. Original articles which have not been published elsewhere are invited and should be sent to the Editor. They are considered for publication on the understanding that they are contributed to this *Journal* solely. Reproduction elsewhere, in whole or in part, is not permitted without the previous written consent of the Author and Editor and the customary acknowledgement must be made. Normally an original main article should not exceed 7500 words.

Longer articles or theses will be considered for publication as *Supplements*, at the expense of the authors or their employing authorities.

2. Manuscripts should be **typewritten in duplicate** on one side of the paper only (A4 297x210 mm) and double spaced, with wide margins.

Begin each component on a new page in the following sequence: title page, abstract, text, acknowledgements, references, tables and legends.

(a) **Abstract**—This should contain not more than 150 words and include a statement of the problem, the method of study, results and conclusions; a 'summary' section should **not** be included in the main manuscript.

(b) **Key Words**—only those appearing as Medical Subject Headings (MeSH) in the supplement to the Index Medicus may be used; where no appropriate word(s) are listed those dictated by common sense/usage should be supplied.

(c) **Text**—Suggested outline—(1) introduction, (2) materials and methods, (3) results, (4) discussion, (5) conclusion.

(d) **Tables** are adjuncts to the text and should not repeat material already presented.

(e) **Illustrations**—Two sets of illustrations, one with each copy of the manuscript, must be submitted and all authors should remember that the single column width is 80mm. One set of illustrations should, therefore, not exceed this width and they should ensure that the essential features are illustrated within this dimension.

Coloured illustrations will be charged to authors, unless a special grant is authorized by the Editor.

Written permission from the publisher must be provided to the *Journal* in order to republish material with copyright elsewhere and also from the senior author where necessary.

(f) **Measurements** must be in metric units, with Système Internationale (SI) equivalents given in parentheses.

(g) **References**—For *Journal* articles, The Harvard system of recording references should be used, e.g. Green, C. and Brown, D. (1951) The tonsil problem. *Journal of Laryngology and Otology* 65: 33–38. A paper written by more than two authors should be abbreviated in the text, e.g. Green *et al.* (1951), but *all* the authors should be given in the list of references. The titles of all *Journals* should be given without abbreviation. **References should be listed in alphabetical order**; use of the Vancouver system will **not** be accepted.

For single-author books, the following style should be used: Green, C. (1951) *The tonsil problem*, 2nd Edition, vol. 1, Headley Brothers Ltd., Ashford, Kent, pp 33–38.

For papers in multi-author books with one or more editors, the reference should include the title of the chapter and the names of the editors, together with the number of the edition as eg: Brown, D. (1951) Examination of the ear. In *Diseases of the Ear, Nose and Throat*. 2nd Edition. (White, A., Black, B., eds.), Headley Brothers Ltd, Ashford, Kent, pp 33–38.

It is most important that authors should verify personally the accuracy of every reference before submitting a paper for publication. The names of authors cited in the References should be given in alphabetical order.

(h) **Drugs**—The proper names of drugs must be used. One reference can be made to the brand name if it is felt to be important to the study.

(i) **Meetings**—If the manuscript was presented at a meeting, the place where it was held, and the date on which it was read must be included and should appear at the foot of the title page.

(j) **Financial disclosures**—In the submission letter to the Editor, the authors must list all affiliations with or financial involvement in, organizations or entities with a direct financial interest in the subject matter or material of the research discussed in the manuscript.

(k) **Declaration**. Each manuscript must be accompanied by a letter of declaration to be signed by each author to confirm that they have seen, read and approve the contribution bearing their name.

(l) **Rejections**—All manuscripts which are rejected will no longer be returned to the authors. Those submitting papers should, therefore, ensure that they retain at least one copy and the reference numbers, if any, of the illustrations. The only exception to this will be those manuscripts with colour illustrations which will be returned *automatically* by Surface Mail.

(m) **Facsimile (FAX)**. All authors should send a Facsimile number whenever possible to speed communication; this particularly applies to those outside the United Kingdom. Manuscripts with no visual illustrations (X-rays/pathology) may be sent by facsimile.

3. Page proofs are sent to authors for corrections, which should be kept to a minimum; they must be clearly marked, and no extra matter added. Proofs should be returned within 5 days.

4. Orders for reprints must be sent when returning page proofs, and for this purpose special forms are supplied.

5. Editorial communications may be addressed to **The Editor, Journal of Laryngology and Otology, c/o Headley Brothers Ltd., The Invicta Press, Ashford, Kent TN24 8HH or sent by FAX (0483 451874).**

6. **The annual subscription is £95.00 Institutions & Libraries US\$190.00; £85.00 Individuals US\$170.00; £45.00 Registrars, Residents and Interns.** (Those in training should submit a certificate from The Head of the Department giving details of their appointment; those who qualify must supply their *home* address for mailing direct). Claims to be made for missing issues within 6 months of each publication date.

7. Single copies of current or back numbers (when available) will be on sale at £12.00 each (including postage).

8. **SUPPLEMENTS** published at 'irregular' intervals with subscription, available separately on request.

9. All subscriptions, advertising and business communications should be sent to the publishers, or subscription agents.

HEADLEY BROTHERS LTD,

THE INVICTA PRESS, ASHFORD, KENT.

© *Journal of Laryngology and Otology Ltd., 1994*

ISSN 0022-2151

Second class postage paid Rahway, N.J.

Postmaster: Send address corrections to The Journal of Laryngology and Otology, c/o Mercury

Airfreight International Ltd. Inc., 2323 Randolph Avenue, Avenel, N.J. 07001. Frequency of Publication: Monthly.

The AD 25 DIAGNOSTIC AUDIOMETER

from *Kamplex*®



The latest addition to the Kamplex range incorporates many of the more popular features found on the best selling AD: in a lightweight low cost package.

The attractive low profile design and easy-to-read back-lit display makes this a perfect desktop audiometer. Air Conduction, Bone Conduction and Narrow-band masking in 5dB steps are available together with an extremely useful talk-through facility.

Superbly engineered for reliability and portability (with the optional case), the AD25 also offers an automatic test facility. A patient's audiometric results whether recorded manually or automatically may be stored and later recalled.

*Auto Threshold complies with ISO 8253, Audiometric Test Methods

- **Robust and Portable (with optional carrying case)**
- **AC/BC/Narrow-Band Masking**
- **Pure, Warble and Pulsed Tones**
- **Clear, easy to read Back-lit Display**
- **Automatic Test Facility (Conforms to ISO 8253)**
- **Results Storage and Recall Capability**
- **Insert Masking**

P.C.WERTH LTD

Audiology House, 45 Nightingale Lane, London SW12 8SP
Telephone: 081-675 5151 Fax: 081-675 7577

Month after Month,
Cover to Cover
The BEST in Otolaryngology

THE
Laryngoscope

FOUNDED IN 1896

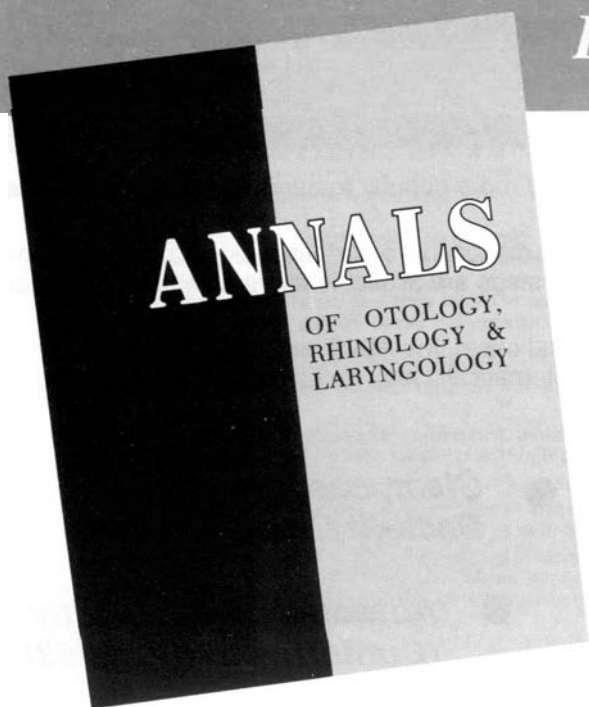
J. Gershon Spector, M.D.
Editor

10 So. Broadway • Suite 1401
St. Louis, MO 63102



U.S. \$110.00 per year Outside U.S. \$135.00 per year
Institutional Rate: U.S. \$150.00 per year • Outside U.S. \$175.00 per year

INVEST IN YOURSELF



OFFICIAL JOURNAL OF THE
AMERICAN LARYNGOLOGICAL ASSOCIATION

1994 ANNUAL SUBSCRIPTION RATES

	RESIDENT*	INDIVIDUAL*	INSTITUTIONAL
US	<input type="checkbox"/> \$52.00	<input type="checkbox"/> \$ 99.00	<input type="checkbox"/> \$148.50
FOREIGN	<input type="checkbox"/> \$64.00	<input type="checkbox"/> \$119.00	<input type="checkbox"/> \$168.50

*Individual, resident, and student subscriptions must be in the individual's name and must be billed to and paid for by the individual.

**NEW SUBSCRIBERS RECEIVE 2 ISSUES
FREE WITH PAID SUBSCRIPTION**



Mail to or call:

ANNALS PUBLISHING CO
4507 LACLEDE AVENUE
ST LOUIS, MISSOURI 63108
(314) 367-4987
FAX (314) 367-4988



- MONTHLY ISSUES • SUPPLEMENTS
- PEER REVIEWED • CLINICAL AND RESEARCH
- IMAGING CASE STUDIES • PATHOLOGY CONSULTATIONS
- LETTERS TO THE EDITOR • BOOK REVIEWS

»ORL today«

RICHARD
WOLF



Endoscopes in a class of their own

Suction-irrigation handle for sinus surgery

- simple operation: no awkward, tiring movements
- adequate irrigation and suction



new Flexible Bronchoscope
for universal application



Stroboscopy of the larynx

Stroboscopy of the larynx is useful in the diagnosis of functional disorders of the voice and provides information about the tension, amplitude and phase of the vocal chords and about irregularities of the oscillatory movement. Secondary organic changes or conditions following microsurgical operations can also be checked.

»worldwide« your Partner for Endoscopy

RICHARD
WOLF



Send for more detailed information to:

RICHARD WOLF U.K. Ltd.

P.O. Box 47 · Mitcham, Surrey CR44TT · Tel. (081) 6403054
Telex 886329 · Tfax (081) 6409709



Twentieth International Workshop

ON TISSUE-INTEGRATED IMPLANTS IN CRANIOFACIAL REHABILITATION AND AUDIOLOGY

by The Unit for Craniofacial Implants
Department of Otolaryngology, Sahlgren's Hospital
University of Göteborg, Sweden

October 5-7, 1994

This three-day workshop will include:

Principle aspects of osseointegration	Live surgery with participants in OR
Bone Biology and Interface Zone theories	Patient demonstrations
Practical training for the surgical procedure	The Bone Anchored Hearing Aid
	Laboratory procedures for craniofacial prosthesis

Workshop Directors:

Anders Tjellström, M.D., Ph.D.
Gösta Granström, M.D., D.D.S., Ph.D.
Kerstin Bergström, CDT.

For further information contact:

Anders Tjellström, M.D., Ph.D.,
Department of Otolaryngology,
Sahlgren's Hospital, University of Göteborg,
Göteborg, Sweden.

Tel: int - 46-31-603504 Fax: int - 46-31-416734

*For Advertisement Rates and Space
in this Journal apply to*

**The Advertisement
Manager**

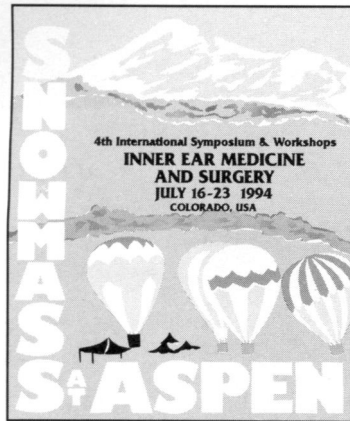
THE JOURNAL OF LARYNGOLOGY AND OTOTOLOGY

Headley Brothers Limited
The Invicta Press
Ashford
Kent TN24 8HH
Tel: (0233) 623131

J.L.O. (1984) LIMITED **Company limited by Guarantee** **Reg No: 1865175 England**

In 1984, The Journal ceased to become a Limited Company with shareholders and instead became a registered charity under the Companies Act, limited by guarantee and without having a share capital. A Memorandum of Association was drawn up and the Association acquired the assets of the Journal of Laryngology and Otology Limited. Former shareholders were invited to become members of the Association and all those who undertook to do so, gave a Guarantee that should the association need to be wound up, they would contribute a sum not exceeding £20.

Annual General Meeting. This is normally held each year in early November, and it is to the Members of the Association that invitations are issued. Any individual paying a full subscription who would like to become a member of the Association is asked to write to the Editor, c/o Headley Brothers, confirming that he or she will make such a guarantee of £20 if the occasion were to arise. Applications for membership may be made at any time. It is hoped that more full subscribers will take up this offer and attend the Annual General Meeting so that there can be a more lively exchange of views between them, and the Editorial staff and publishers.



Organized by the Prosper Meniere Society
4th International Symposium & Workshops
INNER EAR MEDICINE & SURGERY
JULY 16-23 1994

Snowmass/Aspen Colorado USA

Co-Sponsors: International Meniere's Disease Research Institute-IMDRI
 and the Colorado Neurological Institute (CNI) at
 Swedish Medical Center, Englewood, CO USA

GUESTS OF HONOR

UGO FISCH, MD Zurich, SWITZERLAND
HOWARD P. HOUSE, MD Los Angeles, CA USA
BRIAN F. McCABE, MD Iowa City, IA USA
ANDREW MORRISON, FRCS London, England UK

Call for Papers

TOPICS: Viral Immune Inner Ear Disease *Middle Ear/Inner Ear Endoscopies & Lasers *Imaging of the Inner Ear, Vestibular Aqueduct & 8th Nerve * Diagnostic Electrocochleography (ECoG) *Intraoperative ECoG Monitoring *Otoacoustic Emissions(OAE) *Innovative Approaches in Neurotology *Inner Ear Fluid Dynamics & Pathophysiology *Diagnosis & Natural History of Meniere's Disease *Endo-lymphatic Hydrops *Perilymph Fistulas & Leaky Ears * NonDestructive Inner Ear Surgery *Vestibular Nerve Section & Labyrinthectomy *Cochlear Implants

*** George E. Shambaugh, Jr. MD: Study Group for Inner Ear Immune/Allergic Disorders & Hydrops**

Meeting Coordinators: Jane Wells, Apryl Salz or Kay Mack.

MAIL: I. Kaufman Arenberg, MD. Executive Director/Program Chairman
IMDRI

300 E. Hampden Ave., Suite 401, Englewood Colorado 80110 USA
 PHONE: (303) 788-4230 or (303) 781-7223. FAX: 303/788-4234.

**THE BRITISH ACADEMIC
 CONFERENCE IN OTOLARYNGOLOGY**

Manchester 9 – 14th July 1995

Master : Mr Andrew W Morrison, FRCS



The next conference will be held in the University of Manchester Institute of Science and Technology. Distinguished invited international contributors will present and discuss recent developments in otolaryngology, head and neck surgery. Main topic sessions will include :

- Sensorineural deafness
- Controversies in Head and Neck Surgery
- Otitis media with effusion
- Skull base surgery
- Controversies in Otology
- ORS main topic session
- Chronic rhinosinusitis
- Facial plastic surgery
- Controversies in Rhinology
- Phoniatics and voice surgery
- Carcinoma of the larynx
- Facial palsy

Instructional Sessions will be held in small seminar groups, and there will be six Mini-Symposia :

- Allergy
- Cochlear and osseointegrated implants
- Molecular biology and ENT
- Education and training in ENT
- Swallowing, aspiration and dysphagia
- Electrophysiology in ENT

There will be temporal bone dissection demonstrations, a continuous programme of video films, and both Scientific and Trade Exhibitions, together with a full social programme for delegates and spouses. Further details and a copy of the Preliminary Notes may be obtained from the Conference Secretary :

Ms Barbara Komoniewska

British Association of Otolaryngologists

The Royal College of Surgeons of England, 35 – 43 Lincoln's Inn Fields, London WC2A 3PN, England

Telephone : 071 404 8373 Facsimile : 071 405 0318



Recurrent vertigo under control means that patients can continue with their normal daily activities.

With non-sedative Serc-16, driving can be a part of that way of life — because new evidence has shown that even high doses of Serc (72mg tds) did not impair driver performance.¹

Prochlorperazine (5mg tds), however, caused a significant deterioration in driving skills, of which the drivers themselves were unaware.¹

The way ahead is now clear for your patients with recurrent vertigo —
 Rx Serc-16 1 tds.

NON-SEDATIVE

Serc-16

betahistine 16mg

THE WAY AHEAD IN RECURRENT VERTIGO
 due to Ménière's syndrome

Reference 1. Betts TA et al. *Br J Clin Pharmacol* 1991; 32: 455-458

Prescribing information

Presentation A white, flat round tablet imprinted '267' on one face, 'DUPHAR' on the reverse, each tablet containing 16mg betahistine dihydrochloride. Available in packs of 84 tablets. Basic NHS price £18.03. **Indications** Vertigo, tinnitus and hearing loss associated with Ménière's syndrome. **Dosage and Administration** See package insert. Published online by Cambridge University Press

with meals. Maintenance dose: 24-48mg daily. Children: No dosage recommendations are made for children. **Contra-indications, Warnings, etc.** Contra-indications: Phaeochromocytoma. Precautions: Caution is advised in the treatment of patients with a history of peptic ulcer. Clinical intolerance to Serc in bronchial asthma patients has been shown in a relatively few patients and therefore caution should be exercised when administering betahistine to patients with bronchial asthma. The usual precautions should be observed in pregnancy. Side-effects: Relatively

few side-effects have been reported. They include gastrointestinal upset (including dyspepsia), headache, skin rash and pruritus. **Product Licence Number** 05120088. **Legal Category** POM. **Date of Preparation** February 1993. Further information is available from: Duphar Laboratories Limited, Gates Hill, West End, Southampton SO3 3JD. Tel: 0703 472261. Duphar, a member of the Solvay Group.

duphar

Rx 1 t.d.s.