May 1993

The Journal of Laryngology and Otology





Founded in 1887 by Morell Mackenzie & Norris Wolfenden

Edited by NEIL WEIR

Assistant Editors PATRICK BEASLEY, CAROL WENGRAF, RICHARD RAMSDEN, IOLO GRIFF PETER RHŶS EVANS, DAVID PROOPS, VALERIE LUND & HENRY GRANT

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

Vol 107 No 5

The Journal of Laryngology and Otology

(Founded in 1887 by MORELL MACKENZIE and NORRIS WOLFENDEN)

Edited by NEIL WEIR

Assistant Editors PATRICK BEASLEY, CAROL WENGRAF, RICHARD RAMSDEN, IOLO GRIFFITH, PETER RHŶS EVANS, DAVID PROOPS, VALERIE LUND & HENRY GRANT Book Reviews and Abstracts Editor JOHN B. BOOTH

Production Editor 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 297×210 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.

(I) 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

- 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\$237.50; £85.00 Individuals US\$212.50; £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., 1993 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 AD27 n 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

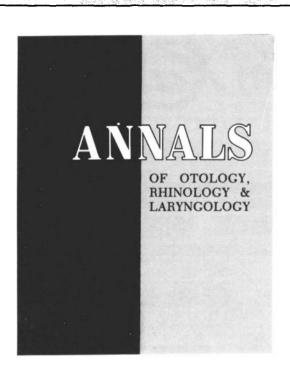
- Clear, easy to read Back-lit Display
 - Automatic Test Facility (Conforms to ISO 8253)
 - Results Storage and Recall Capability
 - Insert Masking

P.C.WERTH LTD

Audiology House, 45 Nightingale Lane, London SW12 8SP https://doi.org/107elephone: 0810675 ട്രിപ്രപ്രിക്കു എട്ടിട്ടെട്ട് ഉട്ടിട്ടെട്ട് എട്ടില്

ANNALS OTOLARYNGOLOGY

A PERFECT MATCH **SINCE 1892**



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

1993 ANNUAL SUBSCRIPTION RATES

Resident* Individual* **Institutional** □ \$48.00 □ \$ 99.00 US □ \$148.50 **\$60.00 \$119.00** ☐ \$168.50 Foreign

*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



PRESCRIBING INFORMATION.

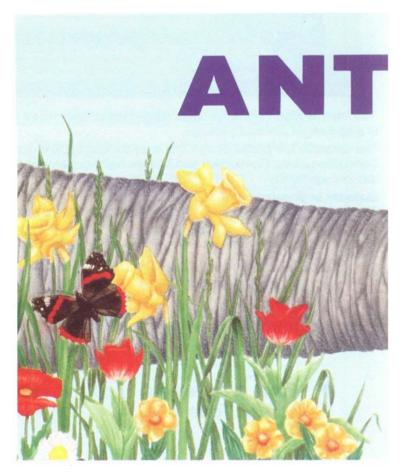
Presentation Rhinolast® is a buffered isotonic slightly viscous aqueous solution for nasal delivery of 0.14mg azelastine hydrochloride per actuation. Uses Rhinolast is both a mediator inhibitor and blocker for use in the both a mediator inhibitor and blocker for use in the treatment of perennial and seasonal allergic rhinitis, including hay fever. It is administered at doses which are not systemically active. **Dosage and Administration** Adults: One 0:14mg (0:14ml) application into each nostril twice daily. There is no evidence that dosage need be modified for the elderly. Children: There are insufficient clinical data to recommend use. **Contra-indications**, **warnings** etc. recommend use. Contra-indications, warnings etc. Contra-indications: Rhinolast is contra-indicated in patients with proven allergy to any of its components. Side-effects: Irritation of the nasal mucosa. Taste disturbance. Use in pregnancy and lactation Until further information is available Rhinolast is not recommended for use during pregnancy or lactation. Overdosage Animal studies have shown that high oral doses can produce CNS symptoms. Should this occur in man symptomatic and supportive treatment should be instigated. There is no specific antidote. Pharmaceutical precautions Do not store below 8°C. Do not refrigerate. Legal category POM. Package quantities Each pack of Rhinolast contains one 10ml bottle and a metered pump device. Product Licence rackage quantities Each pack of initiolast contains one flom bottle and a metered pump device. Product Licence Holder ASTA Medica Limited, 168 Cowley Road, Cambridge CB4 4DL. Product Licence Number 8336/0039. Basic NHS Cost 10ml – £6.40. Rhinolast® is a registered Trade Mark. © ASTA Medica Ltd. 1993. REFERENCES

REFERENCES

1. Kunkel G. et al. Protection of a single dose of azelastine HCl nasal spray against nasal alterations induced by allergen challenge. Study No. 2752 ASTA Pharma AG 1990.

2. Kurzeja A.H. Comparison of the efficacy and tolerability of an azelastine HCl nasal spray with those of terfenadine on six-week treatment of patients with allergic rhinitis (seasonal). Study No. 2610 ASTA Pharma AG 1989.

3. Kisicki J.C. Azelastine nasal spray – twenty nine day tolerability and safety study in healthy subjects. Study No. 254 ASTA Pharma AG 1990. 4. Nolte D. Comparison of the efficacy and tolerability of an azelastine HCl nasal spray with those of terfenadine on six-week treatment of patients with allergic rhinitis (seasonal). Study No. 2606 patients with allergic rhinitis (seasonal). Study No. 2606 ASTA Pharma AG 1989. Date of Preparation February 1993.



Month after Month, Cover to Cover The BEST in Otolaryngology

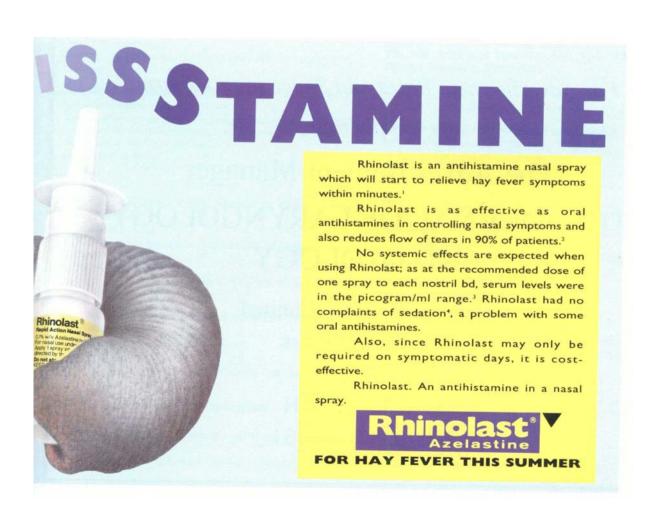
Laryngoscope FOUNDED IN 1896

J. Gershon Spector, M.D. Editor

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



U.S. \$100.00 per year Outside U.S. \$120.00 per year Institutional Rate: U.S. \$125.00 per year • Outside U.S. \$150.00 per year



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 Assocition 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.

For Advertisement Rates and Space in this Journal apply to

The Advertisement Manager THE JOURNAL OF LARYNGOLOGY AND OTOLOGY

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

https://doi.org/10.1017/S0022215100123242 Published online by Cambridge University Press

Laryngology & Otology Publications

Available from the Publishers and from Agents throughout the world.

Prices include postage and packing.

The Journal of Laryngology and Otology

Edited by John B. Booth

A leading international journal, published monthly and containing original scientific articles and clinical records in all fields of Otology, Rhinology and Laryngology. Including occasional supplements.

Annual subscription for 1990 (calendar year): £70.00 Agents £65.00 (US\$175.00 Agents \$162.50); Students rate £40.00 ISSN 0022 2151

Supplements still available separately.

Traité de L'Organe de L'Ouïe

by Nehemiah Asherson

This Bibliography of one of the earliest accurate descriptions of the organ of hearing, which first appeared in 1683, represents the culmination of a lifetime of historical research. It includes a biographical section on Du Verney, the author of the 'Traité'.

Pp 110 ISBN 0 7186 0447 4

Retail £7.00 Agents £6.12 (US\$14.00 Agents \$12.25)

The ENT Surgeon looks at the Orbit

by D. F. N. Harrison

This supplement records in some detail Professor Harrison's 'personal experience over a period of 20 years dealing with a wide variety of clinical conditions in which entry into the orbit was a desirable or essential part of treatment'.

Pp 42 Printed 1980

Retail £4.00 Agents £3.50 (US\$8.00 Agents \$7.00)

20 Years Experience with Homografts in Ear Surgery

by Christian Betow

The author, a professor of Otolaryngology in West Berlin, gives a full account of his pioneering development of homograft materials in reconstructive surgery of the middle ear.

Pp 28 Printed 1982

Retail £4.00 Agents £3.50 (US\$8.00 Agents \$7.00)

Experimental and Clinical Studies in Otitis Media with Effusion

by Jamsheed A. Khan

An experimental and clinical study on the effects of Carbocisteine on fluid in the middle ear.

Pp 28 Printed 1983

Retail £4.00 Agents £3.50 (US\$8.00 Agents \$7.00)

Proceedings of the Sixth British Academic Conference in Otolaryngology

Edited by John Ballantyne and John Booth

Pp 134 Printed 1983

Retail £5.00 Agents £4.50 (US\$10.00 Agents \$7.50)

Second International Tinnitus Seminar

Chairman: Abraham Shulman

A comprehensive study of the problems and treatment of tinnitus. Pp 323 Printed 1984

Retail £20.00 Agents £17.50 (US\$40.00 Agents \$35.00)

Forensic Audiology

by Chuang Wei Ping

A clear concise and practical guide to industrial hearing damage by a barrister/physician. This is an unusual and highly specialised aide memoire for the personal injuries practitioner, well illustrated with recent case law. A commendable enterprise by the author.

Pp 57 Printed 1986

Retail £7.00 Agents £6.12 (US\$14.00 Agents \$12.25)

The Acute Orbit

Preseptal (Periorbital) cellulitis subperiosteal abscess and orbital cellulitis due to sinusitis.

by J. R. Moloney, N. J. Badham and A. McRae

Pp 18 Printed 1987

Retail £7.00 Agents £6.12 (US\$14.00 Agents \$12.25)

Nasal Mast Cells: A Preliminary Report on their Ultrastructure

by A. B. Drake-Lee, F.R.C.S.

The ultrastructural morphology of mast cells in the nose and the adenoids are compared. Normal cells have a very varied morphology with electron dense granules which have scrolls occasionally. Cells from patients with perennial allergic rhinitis show variable degranulation in all areas examined. Few cells were seen in the surface epithelium. Cells from the adenoids had different degrees of degranulation which suggests that mast cell reactions are not a constant feature.

Pp 17 Printed 1987

Retail £10.00 Agents £8.75 (US\$20.00 Agents \$17.50)

Surgical Anatomy of Structures Adjacent to the Thyroid Apex and Post-operative Voice Change (A Review Including Dissection)

by K. L. Yerzingatsian, F.R.C.S.

Pp 13 Printed 1987

Retail £10.00 Agents £8.75 (US\$20.00 Agents \$17.50)

Inferior Meatal Anstrostomy Fundamental Considerations of Design and Function

by Valerie Joan Lund, M.S., F.R.C.S.

Pp 18 (Contains 12 × 4 colour illustrations) Printed 1988

Retail £15.00 Agents £13.12 (US\$30.00 Agents \$26.25)

Surgical Management of the Discharging Mastoid Cavity

by R. P. Mills, M.Phil., F.R.C.S.

Pp 6 Printed 1988

Retail £10.00 Agents £8.75 (US\$20.00 Agents \$17.50)

Acquired Subglottic Stenosis

by John M. Graham, F.R.C.S.

Pp 48 Printed 1988

Retail £12.00 Agents £10.50 (US\$24.00 Agents \$21.00)

The University College Hospital/Royal National Institute for the Deaf Cochlear Implant Programme

Pp 57 Printed 1989

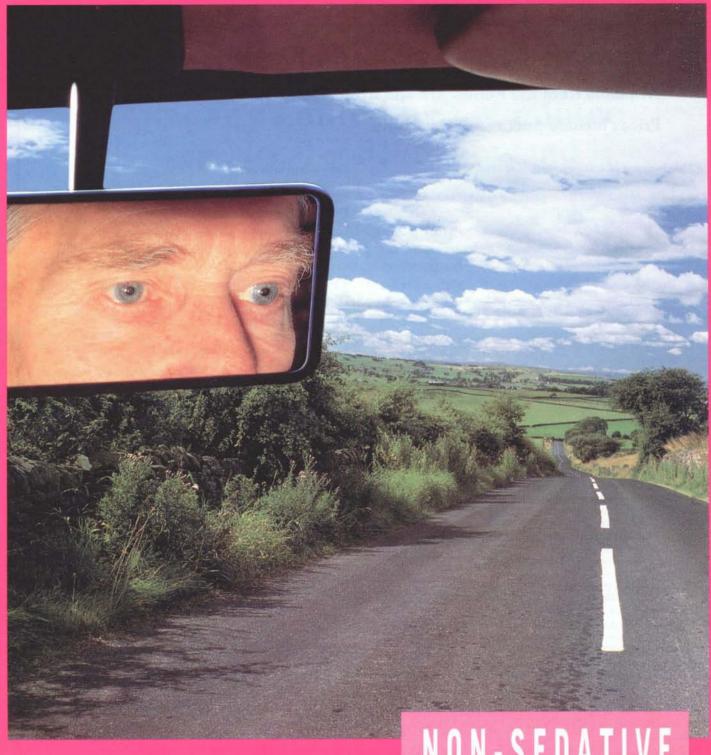
Retail £15.00 (US\$30.00) Agents £13.12 (US\$26.25)

Place-pitch and vowel-pitch comparisons in cochlear implant patients using the Melbourne-Nucleus cochlear implant

by Charles K. Pauka

Pp 31 Printed 1989

Retail £12.00 (US\$24.00) Agents £10.50 (US\$21.00)



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.

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

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

NON-SEDATIVE

Serc-16

THE WAY AHEAD IN RECURRENT VERTIGO

due to Ménière's syndrome

rierence 1. Betts TA et al. Br.J.Clin Pharmac 1991; 32: 455-458.

dyspepsia), headache, skin rash and pruntus. Product Licence Numb 0512/0088. Legal Category POM. Date of Preparation February 1993. Fu

Tel: 0703 472281: Duphar, duphar a member of the Solvay duphar