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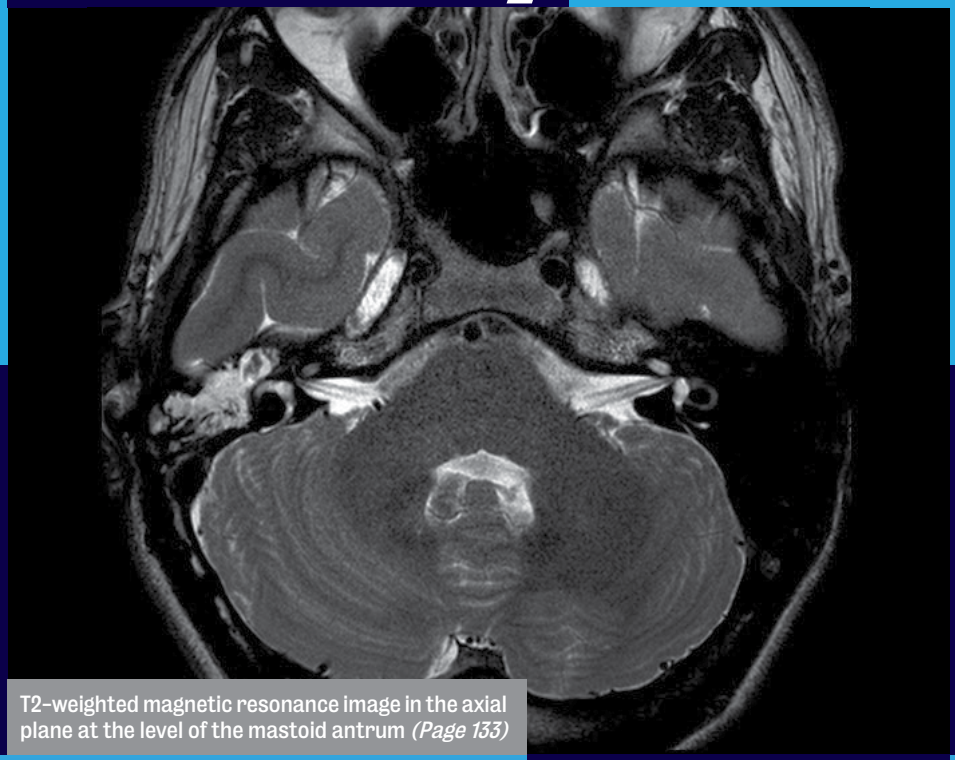

T2-weighted magnetic resonance image in the axial plane at the level of the mastoid antrum *(Page 133)*

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Address for correspondence
Mailing address: 2610 Antwerp,
Oosterveldlaan 24, Belgium
URL: www.advancedotology.org
E-mail: jiao@advancedotology.org

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The scope of the Journal is limited with otology, neurotology, audiology (excluding linguistics) and skull base medicine.

The Journal of International Advanced Otology aims to publish manuscripts at the highest clinical and scientific level. J Int Adv Otol publishes original articles in the form of clinical and basic research, review articles, short reports and a limited number of case reports. Controversial patient discussions, communications on emerging technology, and historical issues will also be considered for publication.

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Editorial and publication processes of the journal are shaped in accordance with the guidelines of the international organizations such as the International Council of Medical Journal Editors (ICMJE) , the World Association of Medical Editors (WAME), the Council of Science Editors (CSE), the Committee on Publication Ethics (COPE), the European Association of Science Editors (EASE)

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A separate title page should be submitted with all submissions and should include the title of the manuscript, name(s), affiliations and major degree(s) of the author(s) and source(s) of the work or study, a short title (running head) of no more than 50 characters. The name, address, telephone (including the mobile phone number) and fax numbers and e-mail address of the corresponding author should be listed on the title page. Grant information and other sources of support should also be included on the Title page. Individuals who contributed to the preparation of the manuscript but do not fulfil the authorship criteria should be acknowledged in the title page.

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All manuscripts should be accompanied an abstract. A structured abstract is required with original articles and it should include the following subheadings: Objective, Materials and Methods, Results and Conclusion. A structured abstract is not required with review articles and case reports. The abstract should be limited to 250 words for original articles and review articles and 150 words for case reports.

Key Words
Each submission should be accompanied by 3 to 5 key words which should be picked from the Medical Subject Headings (MeSH) list (www.nlm.nih.gov/mesh/MBrowser.html).

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The main text of Case Reports should be limited with 1200 words and should be structured with the following subheadings; Introduction, Case Presentation and Discussion. The maximum number of references cited in a case report should be 10.

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All acronyms and abbreviations used in the manuscript should be defined at first use, both in the abstract and the main text. The abbreviation should be provided in parenthesis following the definition.

Statistical analysis should be performed in accordance with guidelines on reporting statistics in medical journals (Altman DG, Gore SM, Gardner MJ, Pocock SJ. Statistical guidelines for contributors to medical journals. Br Med J 1983: 7; 1489-93.). Information on the statistical analysis process of the study should be provided within the main text.

When a drug, product, hardware, or software mentioned within the main text product information, including the name of the product, producer of the product, city of the company and the country of the company should be provided in parenthesis in the following format: "Discovery St PET/CT scanner (General Electric, Milwaukee, WI, USA)"

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Example: Pirvola U, Xing-Qun L, Virkkala J, Saarma M, Murakata C, Camoratto AM, et al. Rescue of hearing, auditory hair cells, and neurons by CEP-1347/KT7515, an inhibitor of c-Jun N-terminal kinase activation. J Neurosci 2000; 20: 43-50.

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Books
Chapter in a book: Sherry S. Detection of thrombi. In: Strauss HE, Pitt B, James AE, editors. Cardiovascular Medicine. St Louis: Mosby; 1974.p. 273-85.

Personal author(s): Cohn PF. Silent myocardial ischemia and infarction. 3rd ed. New York: Marcel Dekker; 1993.

Editor(s), compiler(s) as author: Norman IJ, Redfern SJ, editors. Mental health care for elderly people. New York: Churchill Livingstone; 1996.

Conference paper:
Bengisson S. Sothemin BG. Enforcement of data protection, privacy and security in medical informatics. In: Lun KC, Degoulet P, Piemme TE, Rienhoff O, editors. MEDINFO 92. Proceedings of the 7th World Congress on Medical Informatics; 1992 Sept 6-10; Geneva, Switzerland. Amsterdam: North-Holland; 1992. P. 1561-5.

Scientific or technical report:
Smith P. Golladay K. Payment for durable medical equipment billed during skilled nursing facility stays. Final report. Dallas (TX) Dept. of Health and Human Services (US). Office of Evaluation and Inspections: 1994 Oct. Report No: HHSIGOE 169200860.

Dissertation:
Kaplan SI. Post-hospital home health care: the elderly access and utilization (dissertation). St. Louis (MO): Washington Univ. 1995.

Article in electronic format:
Morse SS. Factors in the emergence of infectious diseases. Emerg Infect Dis (serial online) 1995 Jan-Mar (cited 1996 June 5): 1(1): (24 screens). Available from: http:/ www.cdc.gov/ncidodlElD/cid.htm.

Tables
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Figures, graphics and photographs should be submitted as separate files (in TIFF or JPEG format) through the submission system. The files should not be embedded in a Word document or the main document. When there are figure subunits, the subunits should not be merged to form a single image. Each subunit should be submitted separately through the submission system. Images should not be labelled (a, b, c, etc.) to indicate figure subunits. Thick and thin arrows, arrowheads, stars, asterisks and similar marks can be used on the images to support figure legends. Like the rest of the submission, the figures too should be blind. Any information within the images that may indicate an individual or institution should be blinded. The minimum resolution of each submitted figure should be 300DPI. To prevent delays in the evaluation process all submitted figures should be clear in resolution and large in size (minimum dimensions 100x100mm)

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Example: Figure 4. a-d. Effects of xylitol on viability of HMEECs and HEI-OC1s. Xylitol at concentrations of up to 1000 µg/mL did not decrease the viability of HMEECs and HEI-OC1s (a). Xylitol at concentrations of up to 1000 µg/mL did not induce apoptosis or necrosis of HMEECs and HEI-OC1s (b, c). Morphology of HMEECs and HEI-OC1s remained unchanged by xylitol at concentrations of up to 1000 µg/mL (light microscope, x200 and Hoechst 33342 staining, x400). The data shown are means±standard deviations of three repeated experiments from six samples (c, d)

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Editorial

A Plea for More Mechanistic Patient Centered Research in Otology

In the last decades, several great forces have been shaping clinical medicine, and research in clinical medicine, including otology. These are Evidence Based Medicine, and clinical trials, Personalized Medicine, and Qualitative Medicine. Personalized Medicine arose out of the explosion in knowledge about genetic and molecular mechanisms of disease in the last 20 years. It attempts to characterize individual patients at the biologic level so that therapies can be tailored specifically to the patient's biology. Qualitative research most often seeks a deeper understanding of the subjective experience of the patient, and their environment. Clinical trials, and evidence based on their analyses such as meta-analyses have come to increasingly dominate thinking and research in medicine. Systematic reviews in otology are increasing exponentially.

EBM and qualitative research have been very useful, and are based on sound principles and allow us to evaluate interventions much more rigorously than we did in the past. As such these types of research deserve great respect. Outcomes research is quite heavily promoted by health care systems that must make difficult decisions regarding how to spend finite resources on health.

However, none of these types of research can really tell us much about the underlying mechanisms of disease. Nor do they result in generation of new hypotheses as to the causes or mechanisms of how disease in otology manifests. For that, we need to continue to develop research into the mechanisms behind why things happen the way they do, how they interact with other systems, and what causes normal mechanisms to go awry. Often there is a push to develop new treatments, and this is easier to raise funds for, as of course the goal of all research is cure of disease. However, this can be at the expense of understanding first the mechanisms involved in disease and its progression. Only then can treatments be rationally devised.

It seems that many young trainees in otology increasingly seem to be shying away from mechanistic research, favoring instead evidence based research methodologies, educational research or advanced administrative degrees. It seems to be that we are going backwards in the role of the academic clinician as part of a scientific team.

In otology, our diagnostics are often very crude. There are diagnoses in our field, such as sudden sensorineural hearing loss, or chronic subjective dizziness, that are just descriptors of symptoms or signs. They say nothing about the underlying mechanisms. For instance, sudden sensorineural hearing loss could be from vascular, infectious, ototoxic, traumatic, metabolic or autoimmune causes. Even our common tests, such as the audiogram, sample only a crude part of the hearing ability. In many centers even speech testing in quiet is not routinely performed.

How about temporal processing, speech in noise, ability to understand with degraded signals, fine frequency hearing etc etc.? These would map better onto patient symptoms.

A fundamental problem is that otologic disorders and their mechanisms are evaluated in silos. These silos include otologists, basic scientists, audiologists, vestibular therapists, electrophysiologists, neurologists and neurosurgeons. They often do not communicate at all, and are all immersed in their own research or clinical "bubbles".

While many clinicians are not able to take time to develop expertise in bench research at the cellular or molecular level, I would urge academic clinicians to build the engines of mechanistic research in otology in their centers. The patient is the common denominator between the clinician and the researcher. Each patient is potentially a learning opportunity for research, if we could build collaborations between otologists, engineers, basic scientists, in order to apply current in-vivo interrogation tools, such as electrophysiology, acoustic probes and responses, imaging, psychoacoustics, genetic testing, biological markers, vestibular testing tools, and advanced audiometry including simulated environments to patients as they pass through the clinical flow. This would require them to be co-located with the clinic areas. I am advocating a push to build these types of centers in academic institutions.

Better understanding of the mechanisms behind disease would lead to better diagnostics, and hence better profiling of patients for clinical trials. It would lead to new therapeutics, and better guided therapeutics for therapies already existent.

It is important for academic leaders to continue to stress the need for mechanistic research in otology disorders in the next generation of otologists. While we need otologists trained in evidence based medicine, this cannot become the sum total of our research efforts in the coming decades!

Prof. Dr. Manohar Bance
Division of Otolaryngology-Head and Neck Surgery
Dalhousie University, Halifax, Nova Scotia, Canada