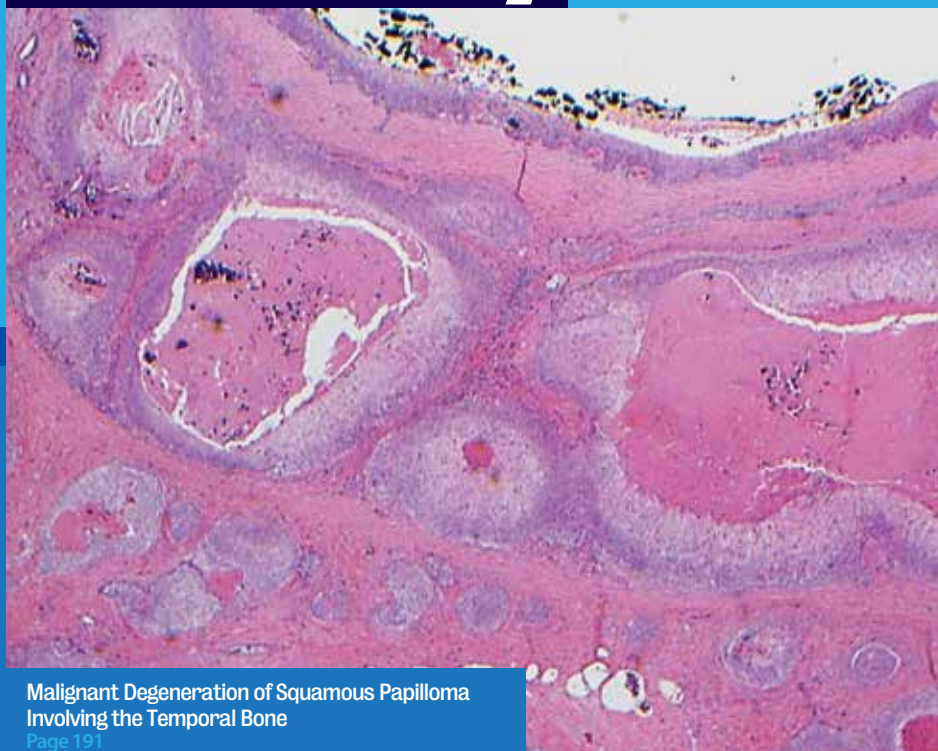


IAO The Journal of International Advanced Otology



Malignant Degeneration of Squamous Papilloma
Involving the Temporal Bone
Page 191

Vol. 10 | Issue 2 | May 2014

Supported by



Member of



Covered by

SCI EXPANDED
Beginning with Vol 3 Issue 1



MSOA
Official Journal of The Mediterranean
Society of Otolaryngology and Audiology

www.advancedotology.org

EDITOR

O. Nuri Özgirgin

Department of Otolaryngology-Head and Neck Surgery, Bayındır Hospital, Ankara, Turkey

ASSOCIATE EDITOR

Bülent Satar

Department of Otolaryngology, Gülhane Military Medical Academy, Ankara, Turkey

ADMINISTRATIVE ADVISORY BOARD

Abdelhamid Benghalem

*Department of Otolaryngology, Cabinet,
Casablanca, Morocco*

Antonio della Volpe

*Department of Otolaryngology, Santobono
Paediatric Hospital, Naples, Italy*

Antonio Quaranta

*Department of Otolaryngology, University of Bari,
Bari, Italy*

Armağan İncesulu

*Department of Otolaryngology, Eskişehir
Osmangazi University, Eskişehir, Turkey*

Ashley Wackym

*Department of Otolaryngology, Ear and Skull Base
Institute, Portland, USA*

Bruce Gantz

*Department of Otolaryngology, University of Iowa,
Iowa, USA*

Constantino Morera

*Department of Otolaryngology, University of
Valencia, Valencia, Spain*

Erol Belgin

*Department of Otolaryngology, Başkent University,
Ankara, Turkey*

Erwin Offeciers

*Department of Otolaryngology, Sint-Augustinus
Hospital University, Wilrijk, Belgium*

George Zaytoun

*Department of Otolaryngology, American
University, Beirut, Lebanon*

Haruo Takahashi

*Department of Otolaryngology, University of
Nagasaki, Nagasaki, Japan*

Hiroshi Moriyama

*Department of Otolaryngology, Jikei University
School of Medicine, Tokyo, Japan*

İrfan Devranoğlu

*Department of Otolaryngology, İstanbul University,
İstanbul, Turkey*

Jacques Magnan

*Department of Otolaryngology, Causse Ear Clinic,
Beziers, France*

Karl B. Huttenbrink

*Department of Otolaryngology, University of Köln,
Köln, Germany*

Lorne Parnes

*Department of Otolaryngology, University of
Western Ontario, Ontario, Canada*

Anestis Psifidis

*Department of Otolaryngology, University of
Thessaloniki, Greece*

Malou Hultcrantz

*Department of Otolaryngology, Karolinska
University Hospital, Stockholm, Sweden*

Milan Stankovic

*Department of Otolaryngology, University of Nis,
Nis, Serbia*

Mislav Gjuric

*Department of Otolaryngology, Sinteza Health
Center, Zagreb, Croatia*

Orhan Yılmaz

*Department of Otolaryngology, Dışkapı Yıldırım
Beyazıt Training and Research Hospital, Ankara,
Turkey*

Per Caye Thomasen

*Department of Otolaryngology, Gentofte University
Hospital, Hellerup, Denmark*

Robert Filipo

*Department of Otolaryngology, Sapienza University,
Rome, Italy*

Tayfun Kirazlı

*Department of Otolaryngology, Ege University,
İzmir, Turkey*

Wolf Dieters Baumgartner

*Department of Otolaryngology, University Clinic
Vienna, Vienna, Austria*

Yıldırım Bayazıt

*Department of Otolaryngology, Medipol University,
İstanbul, Turkey*



Publisher

İbrahim KARA

Publication Director

Ali ŞAHİN

Deputy Publication Directors

**Gökhan ÇİMEN
Ayşegül BOYALI**

Publication Coordinators

**Nilüfer TÜRKYILMAZ
Merve AKDEMİR SAĞLIK
Leda BAŞGÜL
Aslin ANDONYAN**

Sales Coordinator

Sinan Gökboroğlu BÜNCÜ

Finance Coordinator

Veysel KARA

Project Assistant

**Esra GÖRGÜLÜ
Hakan ERTEN**

Graphics Department

**Unal ÖZER
Neslihan YAMAN
Merve KURT**

Contact

Address : Büyükdere Cad. No: 105/9

34394 Mecidiyeköy,
Şişli, İstanbul

Phone : +90 212 217 17 00

Fax : +90 212 217 22 92

E-mail : info@avesyayincilik.com

Yayın Türü : Yerel Süreli

Basım Tarihi: Mayıs 2014

Basım Yeri: ADA Ofset Matbaacılık

Tic. Ltd. Şti., Litros Yolu 2. Matbaacılar S.

E Blok No: (ZE2) 1. Kat Topkapı, İstanbul

Telefon : +90 212 567 12 42

EDITORIAL CONSULTANTS

Gino Marioni

Department of Otolaryngology, University of Padova, ITALY

John Xenelis

Department of Otolaryngology, University of Athens, Athens, Greece

George Zaytoun

Department of Otolaryngology, American University, Beirut, Lebanon

Hans Peter Zenner

Department of Otolaryngology, University of Tübingen, Tübingen, Germany

Steven O'Leary

Department of Otolaryngology, University of Melbourne, Melbourne, Australia

Bruce Gantz

Department of Otolaryngology, University of Iowa, Iowa, USA

Badr el Mostafa

Department of Otolaryngology, Ain-Shams University, Cairo, Egypt

Giovanni Danesi

Department of Otolaryngology, Ospedale Papa Giovanni XXIII - Bergamo, Bergamo, Italy

Rubens de Brito Neto

Department of Otolaryngology, University of Sao Paulo, Sao Paulo, Brazil

Abdelhamid Benghalem

Department of Otolaryngology, Cabinet University of Iowa, Casablanca, Morocco

Babür Akkuzu

Department of Otolaryngology, American Hospital, Istanbul, Turkey

Songül Aksoy

Department of Audiology, Hacettepe University Ankara, Turkey

Mesut Akyol

Department of Statistic, Gulhane Military Academy, Ankara, Turkey

Cüneyt Alper

Department of Otolaryngology, University of Pittsburg, Pennsylvania, U.S.A.

Helge Rask Andersen

Department of Otolaryngology, Uppsala University Hospital, Uppsala, Sweden

Francisco Antoli-Candela

Department of Otolaryngology, Clinica Antoli Candela, Madrid, Spain

Fazil Necdet Ardiç

Department of Otolaryngology, Pamukkale University, Denizli, Turkey

Miguel Aristegui

Department of Otolaryngology, Hospital General Universitario Gregorio Marañon, Madrid, Spain

Bernard Ars

Department of Otolaryngology, University of Antwerp, Antwerp, Belgium

Asim Aslan

Department of Otolaryngology, Celal Bayar University, Manisa, Turkey

Ahmet Ataş

Department of Otolaryngology, Istanbul University, Istanbul, Turkey

Manohar Bance

Department of Otolaryngology, Dalhousie University, Halifax Nova Scotia, Canada

Maurizio Barbara

Department of Otolaryngology, Sapienza University, Sant'Andrea Hospital, Rome, Italy

Saba Battelino

Department of Otolaryngology, University Medical Centre, Ljubljana, Slovenia

Wolf-Dieters Baumgartner

Department of Otolaryngology, University Clinic Vienna, Vienna, Austria

Yıldırım Bayazıt

Department of Otolaryngology, Medipol University, Istanbul, Turkey

Aziz Belal

Department of Otolaryngology, Alex Ear Center, Alexandria, Egypt

Erol Belgin

Department of Otolaryngology, Başkent University, Ankara, Turkey

Bruce Black

Department of Otolaryngology, Royal Children's Hospital, Brisbane, Australia

Robert Briggs

Department of Otolaryngology, Royal Victorian Eye and Ear Hospital, Melbourne, Australia

Rubens de Brito

Department of Otolaryngology, University of Sao Paulo, Sao Paulo, Brazil

Jan W. Casselman

Department of Otolaryngology, AZ St. Jan Brugge-Oostende AV, Brugge, Belgium

Carlos Cenjor Español

Department of Otolaryngology, Fundacion Jimenez Diaz - Clinica Nuestra Senora Concepcion, Madrid, Spain

Sun O. Chang

Department of Otolaryngology, Seoul National University Hospital, Seoul, South-Korea

Udi Cinamon

Department of Otolaryngology, Edith Wolfson Medical Center, Cholon, Israel

Onur Çelik

Department of Otolaryngology, Celal Bayar University, Manisa, Turkey

Vincent Darrouzet

Department of Otolaryngology, Hospital Pellegrin, Bordeaux, France

Pavel Dimov

Department of Otolaryngology, University of Stara Zagora, Stara Zagora, Bulgaria

Stefan Dazert

Department of Otolaryngology, Ruhr University of Bochum, Bochum, Germany

İrfan Devranoğlu

Department of Otolaryngology, Istanbul University, Istanbul, Turkey

Gerard O'Donoghue

Department of Otolaryngology, Queen's Medical Centre, University Hospital, Nottingham, UK

John Dornhoffer

Department of Otolaryngology, UAMS Medical Center, Little Rock, USA

Bruce M. Edwards

Department of Otolaryngology, Medical Center, Ann Arbor, Michigan, U.S.A.

Roberto Filipo

Department of Otolaryngology, Sapienza University, Rome, Italy

Alec Fitzgerald O'Connor

Department of Otolaryngology, St. Thomas' Hospital, London, UK

Arun K. Gadre

Department of Otolaryngology, University of Louisville, Kentucky, USA

Aydan Genç

Department of Audiology, Hacettepe University, Ankara, Turkey

Mislav Gjurić

Department of Otolaryngology, SINTEZA Health Center, Zagreb, Croatia

Enis Alpin Güneri

Department of Otolaryngology, Dokuz Eylül University, İzmir, Turkey

Wilko Grolman

Department of Otolaryngology, University of Utrecht, Utrecht, Netherlands

İbrahim Hizalan

Department of Otolaryngology, Novomet ENT Center, Bursa, Turkey

Karl-Bernd Hüttenbrink

Department of Otolaryngology, University of Köln, Köln, GERMANY

Yukiko Lino

Department of Otolaryngology, Jichi Medical University Saitama Medical Center, Saitama, Japan

Armağan İncesulu

Department of Otolaryngology, Eskişehir Osmangazi University, Eskişehir, Turkey

Herman Jenkins

Department of Otolaryngology, University of Colorado, Denver, USA

Daniel Jiang

Department of Otolaryngology, St. Thomas' Hospital, London, UK

Mohan Kameswaran

Department of Otolaryngology, Madras ENT Research Foundation, Chennai, India

Daniel Kaplan

Department of Otolaryngology, Ben Gurion University, Beer Sheva, Israel

Paul Kileny

Department of Otolaryngology, University of Michigan, Michigan, USA

Chong-Sun Kim

Department of Otolaryngology, University of Seoul, Seoul, South-Korea

Tayfun Kirazlı

Department of Otolaryngology, Ege University, İzmir, Turkey

Mete Kiroğlu

Department of Otolaryngology, Çukurova University, Adana, Turkey

Özlem Konukseven

Department of Otolaryngology, Atatürk Hospital, Ankara, Turkey

Nazım Korkut

Department of Otolaryngology, İstanbul University, İstanbul, Turkey

Jona Kronenberg

Department of Otolaryngology, Zerifin Tel Aviv University, Tel-Hashomer, Israel

Maviş Kulak Kayıkçı

Department of Audiology, Hacettepe University, Ankara, Turkey

Roland Laszig

Department of Otolaryngology, University of Freiburg, Freiburg, Germany

Stephen O'Leary

Department of Otolaryngology, University of Melbourne, Melbourne, Australia

Thomas Linder

Department of Otolaryngology, University of Luzern, Luzern, Switzerland

Christopher Linstrom

Department of Otolaryngology, New York Eye and Ear Infirmary, New York, USA

Michal Luntz

Department of Otolaryngology, Bnai Zion Medical Center, Haifa, Israel

Jacques Magnan

Department of Otolaryngology, Causse Ear Clinic, Beziers, France

Manuel Manrique

Department of Otolaryngology, University of Pamplona, Pamplona, Spain

David Andrew Moffat

Department of Otolaryngology, University of Cambridge, Cambridgeshire, UK

Per Moller

Department of Otolaryngology, University of Bergen, Bergen, Norway

Michel Mondain

Department of Otolaryngology, Hospital St. Charles, Montpellier, France

Constantino Morera

Department of Otolaryngology, University of Valencia, Valencia, Spain

Jef Mulder

Department of Otolaryngology, Radboud University Hospital, Nijmegen, Netherlands

Emmnauel Mylanus

Department of Otolaryngology, University of Nijmegen, Nijmegen, Netherlands

Thomas Nikolopoulos

Department of Otolaryngology, University of Athens, Athens, Greece

Onur Odabaşı

Department of Otolaryngology, Adnan Menderes University, Aydın, Turkey

F. Erwin Offeciers

Department of Otolaryngology, Sint-Augustinus Hospital University, Wilrijk, Belgium

John S. Oghalai

Department of Otolaryngology, Stanford School of Medicine, Stanford, USA

Seung Ha Oh

Department of Otolaryngology, Seoul National University Hospital, Seoul, South-Korea

Levent Olgun

Department of Otolaryngology, İzmir Bozyaka Hospital, İzmir, Turkey

Carlos A. Oliveira

Department of Otolaryngology, University of Brasília Medical School, Brasília, Brazil

Ewa Olszewska

Department of Otolaryngology, Medical University of Białystok, Białystok, Poland

Suat Özbilen

Department of Otolaryngology, Gazi University, Ankara, Turkey

Levent Naci Özlüoğlu

Department of Otolaryngology, Başkent University, Ankara, Turkey

Blake Papsin

Department of Otolaryngology, University of Toronto, Toronto, Canada

Keehyun Park

Department of Otolaryngology, Ajou University School of Medicine, Suwon, South-Korea

Lorne Parnes

Department of Otolaryngology, University of Western Ontario, Ontario, Canada

Ronen Perez

Department of Otolaryngology, Shaare Zedek Medical Center, Jerusalem, Israel

Fabio Piazza

Department of Otolaryngology, University of Parma, Parma, Italy

Stefan Plontke

Department of Otolaryngology, University Hospital Halle, Saale, Germany

Dennis Poe

Department of Otolaryngology, Children's Hospital Boston, Boston, USA

Livio Presutti

Department of Otolaryngology, Policlinico University of Modena, Modena, Italy

Marco Puterman

Department of Otolaryngology, Ben Gurion University, Beer Sheva, Israel

Antonio Quaranta

Department of Otolaryngology, University of Bari, Bari, Italy

Nicola Quaranta

Department of Otolaryngology, University of Bari, Bari, Italy

Angel Ramos

Department of Otolaryngology, University Hospital Insular, Las Palmas de Gran Canaria, Spain

Hans Ramsay

Department of Otolaryngology, Helsinki University Hospital, Helsinki, Finland

Shakeel Saeed

Department of Otolaryngology, University College London, London, United Kingdom

Ayşe Sanem Şahlı

Department of Audiology, Hacettepe University Audiology Dept, Ankara, Turkey

Masafumi Sakagami

Department of Otolaryngology, Hyoto College of Medicine, Nishinomiya, Japan

Mario Sanna

Department of Otolaryngology, Gruppo Otologico, Piacenza, Italy

Bülent Şerbetçioğlu

Department of Otolaryngology, Dokuz Eylül University, İzmir, Turkey

Aristides Sismanis

Department of Otolaryngology, University of Athens, Athens, Greece

Henryk Skarzynski

Department of Otolaryngology, World Hearing Center, Warsaw, Poland

Thomas Somers

Department of Otolaryngology, Sint-Augustinus Hospital University, Wilrijk, Belgium

Sven Eric Stangerup

Department of Otolaryngology, Gentofte University Hospital, Copenhagen, Denmark

Milan Stankovic

Department of Otolaryngology, University of Nis, Nis, Serbia

Holger Sudhoff

Department of Otolaryngology, Bielefeld Academic Teaching Hospital, Muenster University, Bielefeld, Germany

Istvan Sziklai

Department of Otolaryngology, University of Debrecen, Debrecen, Hungary

Haruo Takahashi

Department of Otolaryngology, University of Nagasaki, Nagasaki, Japan

Sugata Takahashi

Department of Otolaryngology, University of Niigata, Niigata, Japan

Rinze A. Tange
Department of Otolaryngology, University of
Utrecht, Utrecht, Netherlands

Per Caye Thomasen
Department of Otolaryngology, Gentofte University
Hospital, Hellerup, Denmark

Franco Trabalzini
Department of Otolaryngology, University of Siena,
Siena, Italy

Eric Truy
Department of Otolaryngology, University of Lyon,
Lyon, France

Tuncay Uluğ
Department of Otolaryngology, İstanbul University,
İstanbul, Turkey

Cem Uzun
Department of Otolaryngology, Trakya University,
Edirne, Turkey

Paul Van de Heyning
Department of Otolaryngology, University of
Antwerp, Antwerp, Belgium

Antonio della Volpe
Department of Otolaryngology, Santobono
Pediatric Hospital, Naples, Italy

Robert Vincent
Department of Otolaryngology, Causse Ear Clinic,
Béziers-Colombiers, France

Ashley Wackym
Department of Otolaryngology, Ear and Skull Base
Institute, Portland, USA

Stephen Wetmore
Department of Otolaryngology, University West
Virginia Medical Center, Morgantown, U.S.A.

Ioannis Xenelis
Department of Otolaryngology, University of
Athens, Athens, Greece

Sertaç Yetişer
Department of Otolaryngology, Anadolu Hospital,
İstanbul, Turkey

Orhan Yılmaz
Department of Otolaryngology, Dışkapı Hospital,
Ankara, Turkey

Robin Youngs
Department of Otolaryngology, Gloucestershire
Royal Hospital, Gloucestershire, UK

Matthew Yung
Department of Otolaryngology, Ipswich Hospital,
Ipswich, UK

Thomas Zahnert
Department of Otolaryngology, University Hospital
Dresden, Dresden, Germany

Diego Zanetti
Department of Otolaryngology, University of
Brescia, Brescia, Italy

THE MEDITERRANEAN SOCIETY OF OTOTOLOGY AND AUDIOLOGY (MSOA) INTERNATIONAL EXECUTIVE COMMITTEE

President
Constantino Morera,
Department of Otolaryngology, University of Valencia,
Valencia, Spain

Former Presidents
Jacques Magnan,
Department of Otolaryngology, Causse Ear Clinic,
Béziers, France

Anestis Psifidis
Department of Otolaryngology, University of Athens,
Athens Greece

Vice President
Armağan İncesulu
Department of Otolaryngology, Eskişehir Osmangazi
University, Eskişehir, Turkey

Secretary
Antonio della Volpe
Department of Otolaryngology, Santobono Paediatric
Hospital, Naples, Italy

Treasurer
Saba Battelino
Department of Otolaryngology, University Medical
Centre, Ljubljana, Slovenia

Founder
Antonio Quaranta
Department of Otolaryngology, University of Bari,
Bari, Italy

Members
Fatthi Abdel Baki
Department of Otolaryngology, Alexandria University,
Alexandria, Egypt

Abdelhamid Benghalem
Department of Otolaryngology, Cabinet University of
Iowa, Casablanca, Morocco

Hajri Hella
Department of Otolaryngology, El manar University,
Tunis, Tunisia

Ronen Perez
Department of Otolaryngology, Shaare Zedek Medical
Center, Jerusalem, Israel

Marc Bassim
American University of Beirut Medical Center,
Beirut, Lebanon

O. Nuri Özgirgin (Turkey) (Editorial Position)
Department of Otolaryngology-Head and Neck
Surgery, Bayındır Hospital, Ankara, Turkey

LOCAL OFFICERS (TURKEY)

O. Nuri Özgirgin, Erol Belgin, Tuayfun Kirazlı, Orhan Yılmaz, Yıldırım Bayazit, İrfan Devranoğlu, Armağan İncesulu

Owned and published by
The Mediterranean Society of Otolaryngology and
Audiology (MSOA)
Hayat Sokak 4/8 Kızılay, Ankara – Turkey
Fax: +90 312 235 41 00
URL: www.meditol.org
e-mail: info@mediotol.org



Official Journal of The Mediterranean
Society of Otolaryngology and Audiology

**Holder and accountability for content
on behalf of MSOA**
Prof. Dr. O. Nuri Özgirgin
Bayındır Hastanesi, Söğütözü, Ankara, Turkey
Tel: +90 312 287 90 00 – int: 7811
Fax: +90 312 284 42 76
e-mail: ozgirgin@politzersociety.org



Address for correspondence
Mailing address: IAO, POB 108, 06502, Bahçelievler,
Ankara, Turkey
URL: www.advancedotology.org
E-mail: jjao@advancedotology.org
Fax: +90 312 235 41 00

Subscription
Membership of MSOA includes a subscription to
the Journal. The Journal is not sold separately.
The paper is acid free and meets the requirements
for permanence set by the ISO 9706

The Journal of International Advanced Otology (IAO)
Issues three times a year
Copyright © 2005-2014. All rights reserved.
ISSN 1308-7649
E ISSN 2148-3817

Aims and Scope

The Journal of International Advanced Otology (IAO – Citation Abbreviation: Int Adv Otol) is the open access double-blind peer-reviewed, international publication organ of the The Mediterranean Society of Otology and Audiology. The journal is also supported by the Politzer Society. The Journal of International Advanced Otology is published 3 times per year on January, May and October and its publication language is English.

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. IAO 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.

Target audience of IAO includes physicians and academic people who are interested in both clinical and basic sciences.

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)

The Journal of International Advanced Otology is indexed in Science Citation Index Expanded, Index Copernicus, EBSCO, PROQUEST, SCOPUS.

IAO is funded by revenue generated by advertising as well as the support of the founder organization, The Mediterranean Society of Otology and Audiology.

Subscription information

The access to all full-text issues of the journal is free at www.advancedotology.org. The journal is distributed among the member of the Mediterranean Society of Otology and Audiology free of charge. To become a member of the society, please visit www.mediotosol.org.

Permissions and Reprints

Permissions for reproduction of materials published and reprints in the Journal of International Advanced Otology should be requested from the editorial office at ozgirgin@politzersociety.org. Authors who submit color figures will receive an estimate of the cost for color reproduction.

Advertising

For requests concerning advertising, please contact the Publisher.

Editorial Office: Prof. Dr. O. Nuri Ozgirgin

Bayındır Hastanesi, Soğutozu, Ankara, Turkey

Tel: +90 312 287 90 00 – int: 7811

Fax: +90 312 284 42 76

e-mail: ozgirgin@politzersociety.org

Mailing address: IAO, POB 108, 06502, Bahcelievler, Ankara, Turkey

Publisher: AVES - İbrahim Kara

Address: Büyükdere Cad. 105/9 34394 Mecidiyeköy, Şişli, İstanbul

Phone: +90 212 217 17 00

Fax: +90 212 217 22 92

Web page: www.avesyayincilik.com

E-mail: info@avesyayincilik.com

Instructions for authors

Instructions for authors are published in the journal pages and could be accessed at the web site of the journal - www.advancedotology.org.

Material Disclaimer

Statements or opinions expressed in the manuscripts published in the Journal of International Advanced Otology reflect the views of the author(s) and not the opinions of the editors, the editorial board and the publisher; the editors, the editorial board and the publisher disclaim any responsibility or liability for such materials.

The journal is printed on an acid-free paper.

Instructions to Authors

The Journal of International Advanced Otology (IAO – Citation Abbreviation: Int Adv Otol) is the double-blind peer-reviewed, international publication organ of the Mediterranean Society of Otology and Audiology directed to an audience of physicians who are interested in both clinical and basic science. The Journal of International Advanced Otology 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.

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).

The Journal of International Advanced Otology will only evaluate manuscripts submitted via the journal's self-explanatory online manuscript submission and evaluation system, manuscripts submitted via any other medium will not be evaluated.

Previously published manuscripts (except in the form of an abstract or a preliminary report), and manuscripts that are under consideration for possible publication elsewhere will not be accepted for evaluation.

The Journal of International Advanced Otology requires each submission to be accompanied by a Copyright Transfer Form, an Author Contributions Form and an ICMJE Form for Disclosure of Potential Conflicts of Interest.

Statements or opinions expressed in the manuscripts published in the Journal of International Advanced Otology reflect the views of the author(s) and not the opinions of the editors, the editorial board and the publisher; the editors, the editorial board and the publisher disclaim any responsibility or liability for such materials.

The final responsibility in regard to the published articles rests with the authors.

Each individual listed as an author should fulfil the authorship criteria recommended by the International Committee of Medical Journal Editors (Uniform Requirements for Manuscripts Submitted to Biomedical Journals. <http://www.icmje.org>). Individuals who contributed to the preparation of the manuscript but do not fulfil the authorship criteria should be acknowledged in an acknowledgments section, which should be included in the title page of the manuscript.

The Journal of International Advanced Otology requires and encourages the authors and the individuals involved in the evaluation process to disclose any existing or potential conflicts of interests including financial, consultant, institutional and other relationships that might lead to bias or a conflict of interest.

All sources of funding should be acknowledged in the manuscript.

The authors should state in the Materials and Methods section of the main text that experiments have been performed in comply with the ethical principles of the assigned institutional board or national committee. Application or approval number/year for the study should also be indicated. For animal experiments, the authors additionally should state that international standards regarding the animal care and handling have been followed during the experiments.

It is the author's responsibility to ensure that a patient's anonymity be carefully protected and to verify that any experimental investigation with human subjects reported in the manuscript was performed with informed consent and following all the guidelines for experimental investigation with human subjects required by the institution(s) with which all the authors are affiliated. For photographs that may reveal the identity of the patients, signed releases of the patient or of his/her legal representative should be enclosed; otherwise, patient names or eyes must be masked out to prevent identification.

When reporting experiments on human subjects, indicate whether the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional or regional) and with the Helsinki Declaration (JAMA 2000;284:3043–3049).

As part of submission of the manuscript, the correspondent author should send a short statement declaring that he/she accepts to undertake all the responsibility for authorship during the submission and review stages of the manuscript.

Originality, high scientific quality and citation potential are the most important criteria for a manuscript to be accepted for publication.

Manuscripts submitted to the journal will first go through a technical evaluation process where the editorial office staff will ensure that the manuscript is prepared and submitted in accordance with the journal's guidelines. Submissions that don't adhere the journal's guidelines will be returned back to the submitting author with technical correction requests. Manuscripts that adhere the journal's guidelines will be reviewed by at least 3 external peer reviewers during the evaluation process. The Editor in Chief is the final authority in the decision making process.

Authors of a paper accepted for publication in IAO should be in consent of that editors could make corrections without changing the basic meaning of the text of the manuscript.

The submitting authors will be automatically informed by the journal's manuscript submission and evaluation system of any changes in the status of their submission.

MANUSCRIPT PREPARATION

Manuscripts should be prepared in accordance with the ICMJE - Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals (updated in December 2013 – available at www.icmje.org).

Original Investigations and Reviews should be presented according to the guidelines: randomized study – CONSORT, observational study – STROBE, study on diagnostic accuracy – STARD, systematic reviews and meta-analysis PRISMA, animal experimental studies – ARRIVE, nonrandomized behavioural and public health intervention studies – TREND.

Title page

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.

Main Document

Abstract

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).

Main Text

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.

The subheadings of the review articles should be planned by the authors. However, each review article should include a “Conclusion” section. The main text of review articles should be limited with 5000 words. The number of references cited should not exceed 50.

Original Articles should be structured with Introduction, Materials and Methods, Results subheadings Discussion. The number of references cited should not exceed 35 and the main text should be limited to 3000 words.

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)”

All references, tables and figures should be referred to within the main text and they should be numbered consecutively in the order they are referred to within the main text.

Limitations, drawbacks and shortcomings of original articles should be mentioned in the “Discussion” section before the conclusion paragraph.

References

References should be numbered consecutively in the order they are referred to within the main text and all references listed in the reference list should be referred to within the main text in parenthesis. Style and punctuation of each reference in the reference list should be in accordance with the examples listed below;

Standard journal article: Journal titles should be abbreviated in accordance with journal abbreviations used in Index Medicus (for journal abbreviations consult List of Journals indexed for MEDLINE published annually by NLM at <http://www.nlm.nih.gov/tsd/serials/lji.html>). When there are six or fewer authors, all authors should be listed. If there are seven or more authors, first 6 should be listed, followed by “et al.” A list of authors should be followed by the full title of the article, journal title, year, volume and page numbers.

Example: Pirvola U, Xing-Qun L, Virkkala J, Saarna 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.

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:

Bengissou 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/ncidod/EID/cid.htm](http://www.cdc.gov/ncidod/EID/cid.htm).

Tables

Tables should be included in the main document and should be presented after the reference list. Tables should be numbered consecutively in the order they are referred to within the main text. A descriptive title should be provided for all tables and the titles should be placed above the tables. Abbreviations used in the tables should be defined below the tables by footnotes (even if they are defined within the main text). Tables should be created using the "insert table" command of the word processing software and they should be arranged clearly to provide an easy reading. Data presented in the tables should not be a repetition of the data presented within the main text but should be supporting the main text.

Figures and Figure Legends

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)

Color figures: Authors who submit color figures will receive an estimate of the cost for color reproduction. Otherwise the figures will be converted to black and white.

Figure legends should be listed at the end of the main document. When there are figure subunits, the figure legends should be structured in the following format.

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)

Once a manuscript is accepted for publication it will be provided with a registered DOI number following the acceptance decision. Manuscripts accepted for publication by the Journal of International Advanced Otology will be published as ahead of print articles prior to the printing date of their scheduled issue. Corresponding author will be provided with a PDF Proof by the publisher once the production process of an accepted manuscript is over. The publisher will request the corresponding author to list their correction requests if there are any and approve the publication of the manuscript.

Subscription information

The access to all full-text issues of the journal is free at www.advancedotology.org. The journal is distributed among the member of the Mediterranean Society of Otology and Audiology. To become a member of the society, please visit www.mediotos.org.

Permissions and Reprints

Permissions for reproduction of materials published and reprints in the Journal of International Advanced Otology should be requested from the editorial office at ozgirgin@politzersociety.org.

Instructions for authors

Instructions for authors are published in the journal pages and could be accessed at the web site of the journal - www.advancedotology.org.

Contents

Original Articles

- 102 | **A Post-Tympanoplasty Evaluation of the Factors Affecting Development of Myringosclerosis in the Graft: A Clinical Study**
Can Özbay, Rıza Dündar, Erkan Kulduk, Kemal Fatih Soy, Mehmet Aslan, Hüseyin Katılmış
- 107 | **Endoscopy-Assisted Microvascular Decompression for Trigeminal Neuralgia: The Prognostic Impact of Interposing Material**
Hassan Haidar, Marion Montava, Michael Collin, Arnaud Deveze, Jean Pierre Lavieille
- 113 | **The Efficacy of Varied Oral Steroid Doses on the Treatment of Sudden Sensorineural Hearing Loss**
Chen-Lin Liu, Kuen-Yao Ho, Ling-Feng Wang, Chen-Yu Chien, Hsun-Mo Wang
- 118 | **Statistical Analysis of Various Factors Affecting the Results of Cochlear Implantation**
Ismail Zohdi, Mikhail Wadie AbdElMessih, Amira Maged El Shennawy, Baher Mohamed Badreldin Ashour, Gamal Eldin Hady Kandil
- 124 | **Inner Ear Involvement in Children with Familial Mediterranean Fever**
Abdulkadir Bucak, Şahin Ulu, Ayşegül Bükülmez, Mustafa Said Tekin, Abdullah Ayçiçek, Reşit Köken, Mustafa Solak
- 128 | **Does Short Term Usage of Fresh Pomegranate Juice (FPJ) Protect Cochlear Hair Cells after Cisplatin-Based Chemo-Irradiation?**
Mehmet Akdağ, Süleyman Daşdağ, Ulaş Alabalık, Beyhan Yılmaz, Sevcin Altaş, Seyit Burhaneddin Zincircioğlu, Aylin Gül, İbrahim Kaplan, Faruk Meriç
- 134 | **The Effect of Acute Sleep Deprivation on Temporal Processing and Frequency Resolution in Normal Healthy Adults**
Anshul Arora, Jayashree S. Bhat, Deepak Raj, Ajit Kumar, Kaushlendra Kumar
- 138 | **Perception of Verticality in Patients with Primary Headache Disorders**
Arzu Kandemir, Neşe Çelebisoy, Timur Köse
- 144 | **The Caloric Test and the Video Head-Impulse Test in Patients with Vertigo**
Paloma Eza-Nuñez, Concepcion Fariñas-Alvarez, Nicolas Perez-Fernandez
- 150 | **DPOAEs: Cochlear OHC Functions in Patients with Definite Vestibular Migraine**
Khaled Mokbel, Mohamed Moustafa Abdeltawwab
- 156 | **Correlation between the Size, CT Density of Otosclerotic Foci, and Audiological Tests in Cases of Otosclerosis**
Ahmed Fathy Abdel-Ghany, Noha Mohamed Osman, Samer Malak Botros
- 162 | **The Usefulness of Magnetic Resonance Imaging for Acute Isolated Vertigo Patients in the Emergency Department**
Moo Kyun Park, Kyoung-Min Kim, Naree Lee, Hak Hyun Jung, Sung Won Chae
- 167 | **Radiological Investigation of the Variance of Ossicular Position in Microtic Ears**
Libin Zhou, Hongnan Wang, Haolun Han, Gang Wang, Baowei Li, Dong Zheng, Ruiying Ding, Wei Wu
- 172 | **Development of a Turkish Monosyllabic Word Recognition Test for Adults**
Serpil Mungan Durankaya, Bülent Şerbetçioğlu, Gökhan Dalkılıç, Selhan Gürkan, Günay Kırkım

Case Reports

- 181 | **Chondroid Syringoma Clinically Mimicking Pilomatricoma with a Rare Location in the Helix: Case Report and Literature Review**
Su-Ying Wen
- 184 | **Venous Engorgement as a Cause of Facial Canal Enlargement**
Minbum Kim, Dong-Wook Lim, Ha Young Lee, Kyu-Sung Kim
- 187 | **Large Intradiploic Epidermoid Cyst of the Temporal Bone**
Mi Joo Kim, Ki-Hong Chang, Gyu Cheol Han
- 190 | **Malignant Degeneration of Squamous Papilloma Involving the Temporal Bone**
Michael Gluth, James Dornhoffer, Nicole Massoll
- 194 | **A Composite Foley Catheter Stent Used to Successfully Manage Recurrent Canal Stenosis Caused by Fibrous Dysplasia of the Temporal Bone**
Chao-Yin Kuo, Hsin-Chien Chen, Cheng-Ping Shih, Chih-Hung Wang