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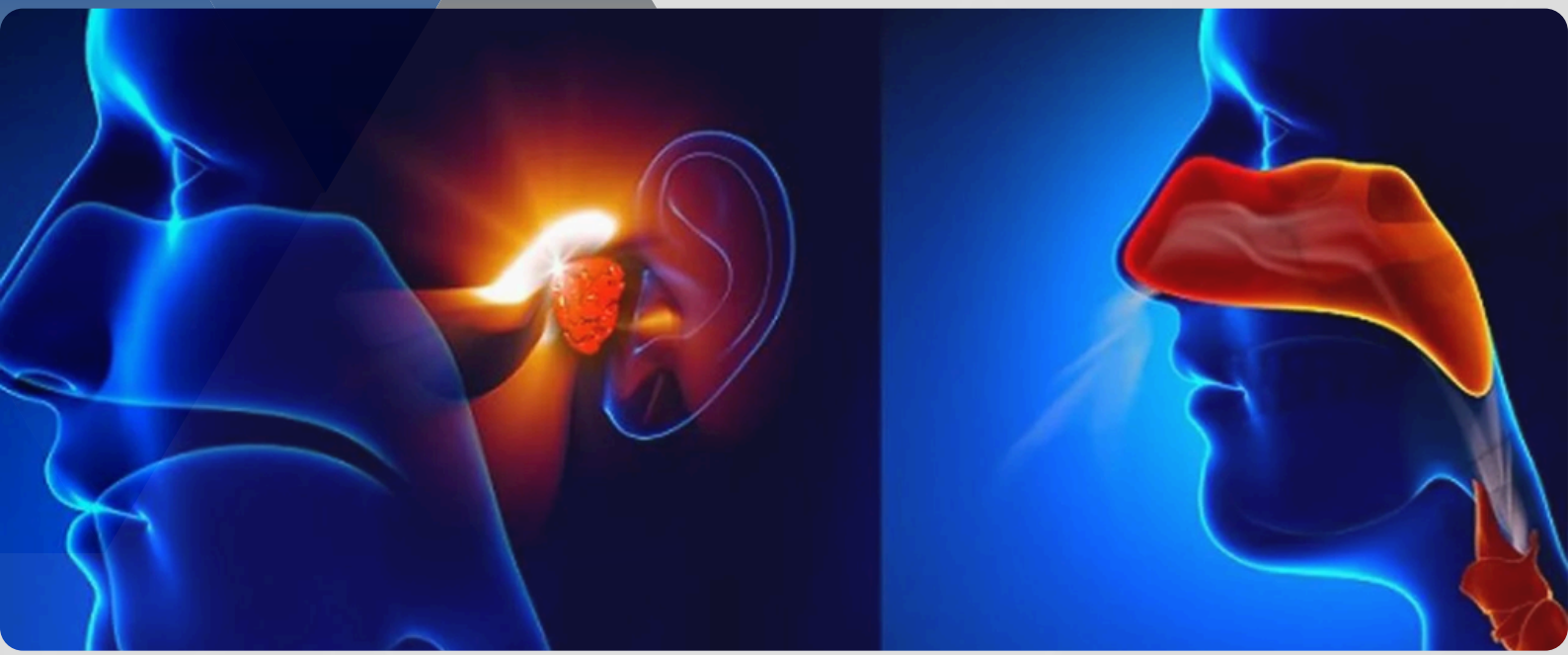
OTORHINOLARYNGOLOGY, HEAD AND NECK CARE CONFERENCE



RAINERS HOTEL, VIENNA, AUSTRIA
APRIL 28-29, 2025

OTORHINOLARYNGOLOGY
April 28-29, 2025 | Vienna, Austria

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ACCREDITED PROVIDER
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OTORHINOLARYNGOLOGY, HEAD AND NECK CARE CONFERENCE

DAY-1 (APRIL 28)

REGISTRATIONS (08:00 - 08:30)

OPENING REMARKS (08:30 - 09:00)

TECHNICAL SESSION-I

09:00-09:25 **Imaging trends in children and adolescents, from 2D to 3D**

Porumb Anca, University of Oradea, Romania

09:25-09:50 **50 Years of Strabismus Treatment in Vienna, Austria**

Stangler-Zuschrott Elfriede, University of Vienna, Austria

09:50-10:15 **HPV in the Larynx: Recurrent Respiratory Papillomatosis –Past, Present, Future**

Anca M Barbu, Cedars Sinai Medical Center, USA

10:15-10:40 **Management of MRONJ patients with Oxygen-Ozone Therapy: The results of an effective protocol at ASST FBF Sacco Hospital, Milano**

Donati Girolamo, ASST Fatebenefratelli Sacco Hospital, Italy

GROUP PHOTO & REFRESHMENT BREAK (10:40-11:00)

TECHNICAL SESSION-II

11:00-11:25 **Anti-Inflammatory Effect of Specialized Pro-resolving Lipid Mediators on Mesenchymal Stem Cells and Hard Tissue Formation: An In-Vitro Study**

Shahd AlZahrani, General Directorate of Prison Health, Saudi Arabia

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11:25-11:50 **Stochastic SIM: a scan-less super resolution retinal imaging**

Marco Leonetti, IIT CLN2S/CNR Nanotec, Italy

11:50-12:15 **Silver Nanoparticles Versus Chitosan Nanoparticles Effects on Demineralized Enamel**

Mariam Abdelaziz Aly Mohamed Abouayana, Alexandria university, Egypt

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12:15-12:40 **A homozygous SP7/OSX mutation causes osteogenesis and dentinogenesis imperfecta with craniofacial anomalies**

Dalal AI Mutairi, Kuwait University, Kuwait

12:40-13:05 **Biomimetic Hydroxyapatite in oral are applcations**

Marco Lelli, University of Bologna, Italy

OTORHINOLARYNGOLOGY, HEAD AND NECK CARE CONFERENCE

LUNCH @ RESTAURANT (13:05-13:45)

TECHNICAL SESSION-III

13:45-14:10 **The Regulation of Heat Shock Protein 90 on Visual Cycle Homeostasis**
Yanzhong Hu, Henan University, China

14:10-14:35 **Prefeeding Interventions to Enhance Oral Feeding in Preterm Infants**
Gaoyan Chen, Xiangyang Central Hospital, China

14:35-15:00 **Results of Primary Treatment and Salvage Treatment in the Management of Patients with Non-Squamous Cell Malignant Tumors of the Sinonasal Region: Single Institution Experience**
Urszula Kacorzyk, Narodowy Instytut Onkologii, Poland

15:00-15:25 **Tactile working memory in blindness**
Eyal Heled, Ariel University, Israel

15:25-15:50 **Weight Matters: The Impact of Obesity on Oral Health and Hygiene**
Madinabonu Mirsaidova, Central Asian University, Uzbekistan

REFRESHMENT BREAK (15:50-16:05)

TECHNICAL SESSION-IV

16:05-16:30 **Efficacy of Erb-Laser on Inferior Turbinate Hypertrophy: A Retrospective and Cohort Study**
Didem Rifki, Famagusta State Hospital, Cyprus

16:30-16:55 **An Exploratory Investigation of the Effect of a Sports Vision Program on Grade 4 and 5 Female Netball Players' Visual Skills**
Dane-Coetzee, North-West University, South Africa

16:55-17:20 **Effect on Osteoarticular Cell Proliferation of the Ti-6Al-4V Alloy Surface Modified by Anodic Oxidation**
Enrique Hernaindez Sanchez, Instituto Politecnico Nacional, Mexico

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17:20-17:45 **The Ear, Nose and Throat Essential Skills Trainer**
Abdul Rafay, Imperial College London, United Kingdom

17:45-18:10 **The Role of EGG in Identifying Prevocalic Glottal Stop**
Ren Zhen, Peking university school of stomatology, China

END OF DAY-01

OTORHINOLARYNGOLOGY, HEAD AND NECK CARE CONFERENCE

DAY-2 (APRIL 29)

TECHNICAL SESSION-I

09:00-09:25 **Tooth abnormalities and their age dependent occurrence in leukemia survivors**

Anna Jodłowska, Medical University of Silesia, Poland

09:25-09:50 **Microsurgical Flow Reconstruction Targeting Adventitial Layer for Long-Segment Cervical ICA Tubular Stenosis Accompanying with Distal Grade 2 or 3 Kinking: Clinical Outcomes of 19 Cases.**

Mehmet Erkan Ustun, Department of Neurosurgery and Anatomy, Turkey

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09:50-10:15 **Scale for the Assessment of Mucosal Wave Dynamics of the Free Edges during Stroboscopic Examination; Clinical Validation Study and Results Analysis**

Tenesaca Pintado Walter, Hospital Campo de Arañuelo, Spain

10:15-10:40 **A Multi-Stage Framework for Cardiovascular Risk Assessment from Retinal Images Using a Fusion of Deep Learning and Computer Vision Techniques**

Madhura Prakash M, Forus Health Private Limited, India

TECHNICAL SESSION-II

REFRESHMENT BREAK

10:40-11:05 **Revolutionizing Maxillary Obturator Prosthesis Fabrication: Synergy of CAD/CAM Technologies and Traditional Methods**

Ines Saadellaoui, University of Monastir, Tunisia

11:05-11:30 **A comparison of traditional learning and combined traditional – Elearning(web-based) on students' learning of practical oral pathology course in students of Birjand University of medical sciences**

Leili Alizadeh, Birjand University of Medical Science, Iran

11:30-11:55 **Reflectance Spectral Images of the Retina as a Biosensor of Alzheimer's Disease**

Zita Salajkova, Fondazione Istituto Italiano di Tecnologia, Italy

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11:55-12:20 **From Neurons to Epithelia: Tau-RhoGTPase Crosstalk in Cytoskeletal Regulation**

Neha Tiwari, Banaras Hindu University, India

12:20-12:45 **Eulogy of the Professor Yves POULIQUEN France**

Jean-.Louis. DUFIER, National Academy of Medicine Paris France

OTORHINOLARYNGOLOGY, HEAD AND NECK CARE CONFERENCE

LUNCH BREAK

TECHNICAL SESSION-III

12:45-13:10	**Manufacturing new types of dental implants with Selective laser melting technology and personalize the dental implants with this technology** **Omid Ashkani,** Islamic Azad University, Iran
13:10-13:35	**Improving Organizational Commitment among Healthcare Employees in Angola: The Role of Psychological Capital and Perceived Transformational Leadership** **Rosa Geremias,** Polytechnic Institute of Lisbon, Portugal
13:35-14:00	**Molecular Profiling of Non-Small Cell Lung Cancer in Morocco: Insights from Targeted PCR and Next-Generation Sequencing Analyses** **Ouafaa Morjani,** Hassan II University, Morocco
14:00-14:25	**Treatment protocol to control Streptococcus mutans level in an orthodontic patient with high caries risk.** **Patricia Valeria Milanezi Alves,** Federal University of Rio de Janeiro, Brazil

REFRESHMENT BREAK

TECHNICAL SESSION-IV

14:25-14:50	**Effect of hypertension and diabetes on prevalence of inflammatory and infectious eye diseases** **Krati Chauhan,** University of Vermont School of Medicine, USA
14:50-15:15	**Sleep Apnea and its associated Cardiac Disorders/Implication** **Krutarth Pandya,** Cleveland Clinic, USA
15:15-15:40	**Painless Granulomatous (Sub acute) Thyroiditis in a very young Female: A Case Report and Literature Review** **Riya Patel,** NEOMED, USA
15:40-16:05	**Use of Vibrational Optical Coherence Tomography to Characterize Corneal Biomechanics in Health and Disease** **Frederick H. Silve,** The State University of New Jersey, USA
16:05-16:30	**Can AI Predict the Ortho-K Contact Lens Decentration?** **Ahmed Abass,** University of Liverpool, UK
16:30-16:55	**Facial neuromas, an underdiagnosed pathology in facial palsy: A systematic review** **Mia Miller, Cedars Sinai Medical Center, USA**
16:55-17:20	**Diabetes mellitus and its sixth complication explained** **Christopher Turner,** Spacemark Dental, United Kingdom

CLOSING REMARKS

WORLD CONGRESS OF ADVANCES IN OTORHINOLARYNGOLOGY, HEAD & NECH CARE

April 28-29, 2025 | VIENNA, AUSTRIA

Didem Rifki [1], Dua Cebeci [2], Seide Karasel [2] ,Nimet Ilke Akcay [3]

Kunter Guven Hospital, Famagusta State Hospital, Eastern Mediterranean University/ Famagusta, Cyprus

Efficacy of Erb-Laser on Inferior Turbinate Hypertrophy: A Retrospective and Cohort Study

Objectives: Nasal obstruction (NO) is a very common complaint in the practice of otolaryngology. The cause of NO can be due to inferior turbinate hypertrophy (ITH), which may be a result of allergic rhinitis, hyperreactivity, hormonal causes, rhinitis medicamentosa or idiopathic. The most commonly used treatments today include local nasal or systemic corticosteroids, cauterization or microdebrider, or thermal ablation with radiofrequency, coblation or ablative laser (mainly carbon dioxide or diode lasers), and submucosal reduction. Erbium YAG laser in non-ablative and SMOOTH thermal mode is considered as a non-invasive treatment and could be a novel and safe alternative.The aim of this study was to evaluate the safety and performance of a new Erb-laser treatment protocol on bilateral ITH, during and after 3 sessions of treatment throughout 6 months.

Methods: This retrospective study was carried out over 30 patients with complaints of NO, sneezing, itching, discharge, and nasal congestion refractory to medical management from July 2019 to December 2020 in the Department of Otorhinolaryngology of a private hospital in Famagusta, North Cyprus. Symptoms were evaluated subjectively by using NO Score and Visual Analog Scale (VAS). Patients were evaluated at the post-procedural 1st-week, and 1st-, 3rd-, and 6th-month postoperatively. During each follow-up visit, symptoms were reassessed by VAS and NO Score.

Results: Differences between pre-operative and post-operative VAS and NO Scores were statistically significant. All patients had significant symptomatic improvements, which started from the post-operative 1stweek and persisted throughout the follow-up period. The active laser treatment showed high improvement during and after the procedure, regarding NO, and decreased the nasal burden on quality of life.

Conclusion: Erbium YAG laser treatment is a simple, safe, effective, and non-invasive method effective on ITH, with minimal damage on the nasal mucosa. It can be done as an office procedure, with minimal complications. This method will provide a great advantage in the future treatment of NO.

Keywords: Inferior turbinate hypertrophy; laser; nasal obstruction; nasal obstruction scale; visual analog scale.

Biography :

Basic Medical Training: İstanbul University Cerrahpaşa Medical Faculty English Programme -İstanbul/Turkey (2003-2009)

Speciality Training: Department of Otolaryngology – HeadandNeckSurgery , Marmara University- İstanbul/Turkey (August 2011-March 2012)

Department of Otolaryngology–Head and NeckSurgery, Sisli Hamidiye Etfal Training and Research Hospital- İstanbul/Turkey (March 2012- September 2015)

Fellowship of European Board Of Otorhinolaryngology- Head and Neck Surgery since 2015.

Registered to Irısh Medical Council since 2021.

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ISBN: 978-1-917892-02-5

Ines Saadellaoui, Sana Bekri, Yosra Mabrouk, Amel Labidi, Lamia Mansour

Department of removable prosthodontics, Dental clinic of Monastir, University of Monastir, Tunisia

Revolutionizing Maxillary Obturator Prosthesis Fabrication: Synergy of CAD/CAM Technologies and Traditional Methods

Abstract:

Background: Soft and hard tissue defects resulting from respective surgeries for carcinomas located in the maxillary arches can cause functional, esthetic, and psychological damage. A removable obturator prosthesis offers several advantages, restoring oral functions, esthetics and improving patients' quality of life. Technological advancements, such as the use of intraoral scanning and computer-aided design (CAD) and manufacturing (CAM), reduce laboratory working time, eliminate the risk of impression material aspiration, and address challenges related to whole tissue undercut impression. Purpose: Here, we report the case of a partially edentulous female patient with a velo-palatal defect for whom a rigid maxillary obturator prosthesis was fabricated.

Methodology: Digital impressions were taken and the standard tessellation language files of the scans were sent to the laboratory. Using dental CAD software, the maxillary metallic framework was designed and manufactured using selective laser melting technology. The obturators and artificial teeth were conventionally processed, with acrylic resin used for the rigid obturators. Results and conclusion: The resulting obturator prosthesis made it possible to close the oro-nasal communication and to improve swallowing, speaking, and chewing.

Keywords: squamous cell carcinoma, optical impression, obturator, prosthesis, computer-aided design, computer-aided manufacturing, selective laser melting

Biography: Ines Saadellaoui is originally from Sidi Bouzid, Tunisia. She studied at the faculty of dentistry in Monastir, where she got her doctorate in dentistry. She passed the residency exam and she chose the specialty of prosthodontics. She has been practicing in the dental clinic of Monastir since 2020.

She is a current member of the Tunisian Association of Prosthodontics and Dental Aesthetics (ATPED).She obtained the diploma in advanced implant and periodontal surgery certified by the university of Monastir and the Federico Naples university of Italy. In 2024, she became an assistant professor. She has great respect for her profession and spends countless hours studying, taking continuing education courses and applying the advances of dentistry.

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Mia Miller, MD[1], Kaitlynne Y Pak, MD[1]; Alberto Nunez[1]; Andre Boyke, MD[2]

[1]Cedars Sinai Medical Center, Division of Otolaryngology, Head and Neck Surgery
[2]Department of Neurosurgery, Cedars-Sinai Medical Center

Facial neuromas, an underdiagnosed pathology in facial palsy: A systematic review

Abstract:

Background: Facial nerve paralysis is most commonly attributed as idiopathic (Bell's) palsy; however, a subset of cases may be caused by an underlying neoplasm, infection, or systemic disease. Although imaging is a sensitive method for distinguishing among the etiologies of facial paralysis, there is no consensus on its indication in the setting of new or recurrent facial nerve paralysis. Facial nerve schwannomas (FNSs) are rare, slow-growing tumors that are typically solitary, unilateral, and sporadic. Their prevalence may be underestimated since many are incidental findings on imaging, with facial paralysis often seen at a later stage. While surgery is the primary treatment for FNS, tumor and facial nerve decompression has been suggested to delay the need for complete resection and preserve facial function. Timely diagnosis helps optimize patient outcomes. This systematic review aims to determine the percentage of patients with facial neuromas who initially presented with facial palsy or were misdiagnosed as Bell's palsy.

Design: PRISMA guidelines were followed to evaluate the incidence of facial palsy as a presenting symptom of facial neuromas. The Pubmed and Cochrane libraries were screened for relevant studies in the last 10 years with the following search terms: "facial nerve neuroma" OR "facial nerve schwannoma" OR "facial neurilemoma". We included adult cases of intratemporal facial neuroma that included a description of facial nerve function at clinical presentation.

Results: A search of titles and abstracts in these two databases yielded 284 studies, 77 full-texts reviewed, and 53 met inclusion criteria. A total of 531 patients were included with 295 (55.6%) initially presenting with facial paralysis. 24 (8.14%) patients were explicitly misdiagnosed with Bell's palsy. House Brackman (HB) scores were better at onset compared to pre-operatively (2.07 +/- 1.49, 2.94 +/- 1.73, respectively). Our in-house, retrospective review resulted in 9 confirmed cases of facial neuroma with 4 (44.4%) patients having facial nerve symptoms (recurrent or persistent facial palsy, paresthesias, or spasms) and 2 (22.2%) patients intially misdiagnosed with Bell's palsy.

Conclusion: Our systematic review reiterates that facial paralysis is a common presenting symptom of a facial neuroma. Although idiopathic (Bell's) palsy is the primary etiology of facial paralysis, it remains a diagnosis of exclusion. A high clinical index of suspicion should be maintained for persistent (>3 months) and recurrent facial palsy episodes, as well as those associated with otologic symptoms. Earlier identification of a facial neuroma opens the door for facial nerve decompression, which can allow patients to maintain native longer facial nerve function.

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ISBN: 978-1-917892-02-5

Riya Patel MD, Krutarth Pandya MD, Utsav Vaghani MBBS, Hussam Tallab MD

PGY-3 Internal Medicine Resident | Future Endocrinology Fellow

Painless Granulomatous (Sub acute) Thyroiditis in a very young Female: A Case Report and Literature Review

Abstract:

Subacute granulomatous thyroiditis, characterized by painful thyroid inflammation, exhibits a higher prevalence in females compared to males, particularly affecting middle-aged women. The disorder often presents with symptoms of thyrotoxicosis during the initial weeks, followed by hypothyroidism before resolving to normal. Prompt treatment with anti-inflammatory medications and corticosteroids leads to positive outcomes within a short timeframe. However, subacute granulomatous thyroiditis rarely manifests in young females without any symptoms for an extended period. In this case report, we present the incidental diagnosis of subacute granulomatous thyroiditis in a 21-year-old female, identified during a routine ultrasound exam over a year ago. This case had the unique characteristic of the patient being painless and asymptomatic throughout the course of presentation and management. Nevertheless, due to the nodule's size (>1 cm), the patient was referred to ENT specialist and a Fine Needle Aspiration, Ultrasound-guided, Thyroid nodule biopsy was recommended, revealing benign features with scattered granulomas, multi-nucleated giant cells, colloid, follicular cells, and inflammatory cells. This case highlights the significance of considering subacute granulomatous thyroiditis as a differential diagnosis in young patients presenting with asymptomatic thyroid nodules. Malignancy must be ruled out, and reassurance, along with proper patient education, should be provided. Symptomatic management and regular follow-ups are crucial for optimal patient care.

Biography: Riya Patel, MD, PGY-3 Internal Medicine Resident | Future Endocrinology Fellow Riya Patel is a graduating Internal Medicine resident at NEOMED in Ohio. She has been matched into the Endocrinology Fellowship Program at Metro Health/Case Western Reserve University in Cleveland, Ohio, USA. Her research interests focus on thyroid disorders, obesity, and reproductive endocrinology. Riya is dedicated to advancing patient care and contributing to the evolving field of endocrinology through both clinical practice and research.

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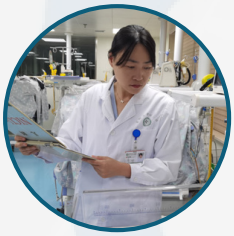

Gaoyan Chen, Rui Pan, Jiangli Ding, Jingyi Zhang

Department of Pediatrics, Xiangyang Central Hospital, Affiliated Hospital of Hubei University of Arts and Science, Xiangyang, China

Prefeeding Interventions to Enhance Oral Feeding in Preterm Infants

Abstract:

Preterm infants often face challenges in oral feeding due to immature oral-motor coordination and disorganized sucking, swallowing, and breathing patterns, which can delay their growth and discharge readiness.This randomized controlled trial investigated the effects of three prefeeding interventions-oral stimulation (OS), non-nutritive sucking (NNS), and combined tactile/kinesthetic (T/K) interventions on feeding outcomes in 140 preterm infants (gestational age <32 weeks). Infants were divided into three groups: Group 1 (n = 46) is Control group, received only nasal feeding according to the normal procedure. Group 2 (n = 40) received OS and NNS additional to Control group. Group 3 (n = 44) received T/K interventions additional to Group 2. Key outcomes included time to full oral feeding (FOF), feeding efficiency, and weight gain velocity. Group 3 achieved the shortest median time to FOF (14 days vs. 21 days in Group 2, $p < 0.01$) and the highest weight gain velocity (15 g/kg/day vs. 12 g/kg/day in Group 2, $p < 0.05$). Group 1 only showed intermediate improvements, indicating a partial benefit of caregiver involvement. These results underscore the effectiveness of comprehensive prefeeding interventions in enhancing feeding skills, promoting growth, and reducing hospital stays in preterm infants. Future research should investigate the long-term neurodevelopmental outcomes associated with these interventions.

Keywords: preterm infants, oral stimulation (OS), non-nutritive sucking (NNS), tactile/kinesthetic (T/K) interventions, feeding outcomes

Biography: Dr. Gaoyan Chen serves as the Deputy Director of the Department of Pediatrics and Director of the Neonatal Intensive Care Unit (NICU) at Xiangyang Central Hospital, affiliated with Hubei University of Arts and Science. She received her medical degree in Clinical Medicine from Wuhan University School of Medicine in 2014. Her clinical expertise lies in the management of neonatal and pediatric respiratory diseases.

With over a decade of experience, Dr. Chen has demonstrated exceptional proficiency in treating neonatal critical illnesses and improving long-term outcomes. Her clinical focus includes pediatric asthma, bronchiolitis, and pneumonia. She also leads a dedicated NICU team committed to advancing strategies for the assessment and management of sucking dysfunction and feeding difficulties in preterm infants.

Dr. Chen's current research centers on the mechanisms and therapeutic strategies of acute lung injury in neonates. She has led or participated in several national and provincial-level scientific research projects, including one funded by the National Natural Science Foundation of China. Over the past five years, she has published five SCI-indexed articles as first or corresponding author. Her academic mission is to integrate fundamental research and evidence-based practices into clinical care to improve long-term health outcomes for premature infants.

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[1,4]**Tenesaca Pintado, Walter;** [2*]Fernández Baíllo, Roberto; [1*]Cardoso López, Isabel; [1,3 *]Rodriguez Paramas, Ángel, [1*]Martínez Martínez, Alfredo Francisco

[1]Department of ENT and Head and Neck Surgery of Vithas Arturo Soria University Hospital of Madrid, Spain
[2]Department de Medicine, Faculty of Biomedical and Health Sciences, Faculty of Medicine and Surgery, Chair of Human Anatomy and Embryology, European University of Madrid, Spain.
[3]Department of ENT and Head and Neck Surgery of University Hospital of Guadalajara, Spain.
[4]Department of ENT and Head and Neck Surgery of Hospital Campo de Arañuelo, Navalmoral de la Mata, Cáceres, Spain

Scale for the Assessment of Mucosal Wave Dynamics of the Free Edges during Stroboscopic Examination; Clinical Validation Study and Results Analysis

Abstract:

Introduction: Identifying the mucosal wave (MW) is essential when studying the voice; however, its characterization and perceived measurement during laryngeal stroboscopy (LS) are not well defined or standardized because of the subjectivity of its interpretation. This article proposed and validated a scale that characterized and approximated MW measurement during LS, applied it to participants divided into a healthy group and groups with free edge conditions, and identified differences between them.

Methods: This is a descriptive and clinical validation study of the "VASQ (Vertical axis, Anteroposterior axis, Symmetry and Quantity) mucosal wave score" scale based on stroboscope images of 137 adult men and women divided into a control group and functional and organic pathology groups. The images were analyzed by three evaluators according to an established protocol. Measurements dictating the reproducibility and validity criteria as well as the MW score in each group were obtained.

Results: The reliability of the scale was $\alpha = 0.90$, internal consistency success rate was 91%, intra-observer reliability was 0.83, inter-observer reliability was 0.83, content validity coefficient was 0.92, and factor loading was 0.37–0.53. The MW total score values between 5 and 6 were established as a reference for normality ($P < 0.05$). Organic pathology showed lower MW score values ($P < 0.05$), and functional pathology to a lesser extent ($P > 0.05$).

Conclusions: The proposed scale is a consistent, valid, and reliable tool. Its widespread application would favor commonly used terminology and facilitate quantitative comparisons in future studies.

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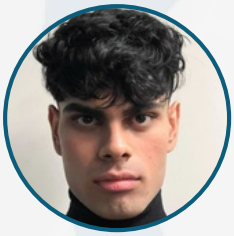

Abdul Rafay, Issa Beegun

Department of Medicine, Imperial College London, SW7 2AZ, London, United Kingdom

The Ear, Nose and Throat Essential Skills Trainer

Abstract:

The Ear, Nose and Throat (ENT) Essential Skills Trainer is a cost-effective, portable, and reusable model designed to teach and practice essential otolaryngology skills. Constructed using a Styrofoam head and inexpensive materials like plastic tubing and modeling clay, the trainer includes models for nasal, otology, laryngeal, and tracheal procedures. This versatile trainer enables practice of anterior and posterior nasal packing, microsuction, myringotomy, flexible nasolaryngoscopy, and tracheal stoma care, enhancing procedural confidence and skill acquisition. Its construction involves crafting detailed anatomical models, including customizable features to simulate pathologies for realistic training scenarios.

This trainer has been utilized globally for departmental inductions and medical education workshops, proving particularly effective in simulation-based teaching. Studies comparing this device with traditional lecture-based methods show significant reductions in participant anxiety, improved confidence, and greater knowledge retention for key ENT procedures. Furthermore, its use in workshops has increased medical student interest in ENT careers, addressing gaps in exposure due to limited undergraduate placements.

Adaptable to various training needs, the trainer has been customized for specific scenarios such as quinsy drainage and emergency airway procedures. Its cost-efficiency and effectiveness make it a valuable tool for promoting ENT education and enhancing training for junior doctors. By providing an accessible platform for skill practice, the ENT Essential Skills Trainer contributes to better preparedness in managing ENT emergencies and fosters interest in the specialty. Institutions interested in replicating this model can contact the authors for guidance, with no associated copyright or financial conflicts.

Keywords: ENT training, simulation, skills, otolaryngology, education

Biography: A keen and motivated medical student at Imperial College London, currently intercalating in Surgical Design, Technology, and Innovation, with a particular interest in academia related to facial plastics and otolaryngology. They have extensive experience in medical research, with multiple publications and presentations at national and international conferences, including the European Academy of Facial Plastic Surgery 2024 Annual Congress. Consistently ranked in the top 10% of their cohort in medical school exams, they are the current Academic Officer of the Imperial College ENT Society and Regional Representative of SFO UK, actively promoting otolaryngology education and innovation.

doi.org/10.51219/URForum.2025.Abdul-Rafay

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Anca M. Barbu, MD FACS

Associate Professor of Surgery, Division of Otolaryngology-Head & Neck Surgery, Cedars-Sinai Medical Center; Los Angeles, California; USA

HPV in the Larynx: Recurrent Respiratory Papillomatosis –Past, Present, Future

Abstract:

Human Papilloma Virus (HPV) in the larynx can present as both benign and malignant lesions. The most common bening neoplasm of the larynx and airway is the HPV-related recurrent respiratory papillomatosis (RRP). The purpose of this presentation abstract is to inform conference attendees about the importance of recognizing HPV in the larynx, differentiating it from other pathology, such as malignancy from squamous cell carcinoma of the larynx, and reviewing options for management of the disease process. Methodology includes up-to-date evidence-based literature review of laryngeal papillomatosis diagnosis, treatment options, including surgical and office-based treatment, and a thorough review of the adjuvant treatment for HPV in the larynx, beyong surgical treatment alone. Review of the novel therapeutic treatment of RRP with Avastin (bevacizumab) and how it can be used with both in-office treatment for localized disease to the larynx, as well as review of its systemic administration will be addressed. The role of HPV vaccination in treatment and prevention will also be addressed. In conclusion, attendees should be able to recognize the importance of HPV in the larynx, understanding typing as implication in management of the disease, as well as become familiar with adjuvant treatments for RRP beyond surgical intervention alone.

Keywords: HPV, larynx, recurrent respiratory papillomatosis, treatment

Biography: Dr. Barbu is board-certified in Otolaryngology Head & Neck Surgery and fellowship-trained at Harvard Medical School in Laryngeal Surgery, where her clinical research in laryngeal HPV resulted in the first prospective trial of bevacizumab in the treatment of papillomatosis. After fellowship, she remained on Harvard's faculty and became the first woman surgeon in the Division of Laryngeal Surgery at the #1 hospital in the U.S. at that time. Dr. Barbu is currently Associate Professor of Surgery at Cedars-Sinai Medical Center in Los Angeles. Her laryngology practice has an emphasis on early laryngeal cancer, papillomatosis, and care of the professional voice.

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ISBN: 978-1-917892-02-5

Krutarth Pandya

Cleveland Clinic in Cleveland, Ohio

Sleep Apnea and its associated Cardiac Disorders/Implication

Abstract

Sleep apnea is a well-recognized sleep disorder with multiple associated long-term comorbidities. Though it is more related to pulmonary and ENT specialties it has significant long-term Cardiac complications. It increases airway pressure at night secondary to reduction in muscle tone and airway collapse. This leads to increased resistance for blood to get oxygenated and circulate through pulmonary vasculature causing pulmonary hypertension, primarily type 3. Pulmonary hypertension increases the pressure the right ventricle exerts for the blood to flow through. As it is not as muscular, the right ventricle remodels more by dilating than becoming hypertrophic when compared to the left ventricle. This remodeling eventually leads to reduced functioning of the right ventricles and can cause right heart failure. Though the most common cause of right-sided heart failure is left-sided heart failure, it may not be true when it is secondary to sleep apnea and other pulmonary disorders. Such kind of heart failure comes with challenges to diagnose as these patients don't have classic findings of heart failure such as pulmonary crackles yet are likely to have significant other signs of volume overload including Jugular venous distension, hepatojugular reflux, and lower extremity edema. As patients with sleep apnea don't present to Cardiologists until they're very late in the disease with associated complications of right heart failure, it is important to understand the consequences of sleep apnea for other specialists including ENT, pulmonologists, and internists, who may be able to identify, intervene and counsel patients early to increase treatment compliance while early in the course of the disease.

Biography

I am Krutarth Pandya, MD, a Clinical Associate with the Department of Cardiology at Cleveland Clinic in Cleveland, Ohio. I completed my medical school in India and graduated in 2019. I completed my Internal Medicine residency at a NEOMED University affiliated program in 2023 and joined Cleveland Clinic initially Department of Hospital Medicine f/b Department of Cardiology as a Clinical Associate. My interest and passion for Cardiology have tailored my experience and learning in Cardiology tremendously since medical school. I have attended and presented at multiple national and international cardiology conferences including the American College of Cardiology, American Heart Association, and Transcatheter Cardiovascular and Therapeutics, and have been invited as a Social Media Ambassador at these conferences as well. My primary interests in cardiology include but are not limited to Heart Failure, Critical Care Cardiology, and Cardiogenic Shock.

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Dalal AI Mutairi

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A homozygous SP7/OSX mutation causes osteogenesis and dentinogenesis imperfecta with craniofacial anomalies

Abstract

Osteogenesis imperfecta (OI) is a heterogeneous spectrum of hereditary genetic disorders that cause bone fragility, through various quantitative and qualitative defects of type 1 collagen, a triple helix composed of two α1 and one α2 chains encoded by COL1A1 and COL1A2, respectively. The main extra-skeletal manifestations of OI include blue sclerae, opalescent teeth, and hearing impairment. Moreover, multiple genes involved in osteoblast maturation and type 1 collagen biosynthesis are now known to cause recessive forms of OI. In this study a multiplex consanguineous family of two affected males with OI was recruited for genetic screening. To determine the causative, pathogenic variant(s), genomic DNA from two affected family members were analyzed using whole exome sequencing, autozygosity mapping, and then validated with Sanger sequencing. The analysis led to the mapping of a homozygous variant previously reported in SP7/OSX, a gene encoding for Osterix, a transcription factor that activates a repertoire of genes involved in osteoblast and osteocyte differentiation and function. The identified variant (c.946C > T; p.Arg316Cys) in exon 2 of SP7/OSX results in a pathogenic amino acid change in two affected male siblings and develops OI, dentinogenesis imperfecta, and craniofacial anomaly. On the basis of the findings of the present study, SP7/OSX:c. 946C > T is a rare homozygous variant causing OI with extra-skeletal features in inbred Arab populations (Al-Mutairi et al., 2024).

Reference

Al-Mutairi, D.A., Jarragh, A.A., Alsabah, B.H., Wein, M.N., Mohammed, W. & Alkharafi, L. (2024) A homozygous SP7/OSX mutation causes osteogenesis and dentinogenesis imperfecta with craniofacial anomalies. JBMR Plus, 8, ziae026.

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Molecular Profiling of Non-Small Cell Lung Cancer in Morocco: Insights from Targeted PCR and Next-Generation Sequencing Analyses

Abstract:

Introduction

Non-small cell lung cancer (NSCLC) represents the majority of lung cancer cases globally and remains a leading cause of cancer-related mortality. In Morocco, where lung cancer incidence is significant, the molecular epidemiology of NSCLC is poorly characterized, hindering the implementation of targeted therapies. This study combines targeted molecular analysis and next-generation sequencing (NGS) to map genetic mutations in Moroccan NSCLC patients.

Materials and Methods:

This two-phase study analyzed genetic mutations in Moroccan NSCLC patients. The first phase involved 94 patients screened using the AmoyDx Pan Lung Cancer PCR Panel, targeting EGFR, ALK, KRAS, ROS1, and other driver genes. The second phase included 100 patients who underwent NGS-based genomic profiling using the Oncomine Precision Assay GX protocol. DNA and RNA were extracted from formalin-fixed paraffin-embedded tissues and sequenced using Ion Torrent technology. Sequencing results were aligned to the human reference genome and annotated using COSMIC and ClinVar databases.

Results and Discussion:

Targeted analysis identified actionable mutations in 27.7% of cases, with EGFR mutations most frequent (22.34%), predominantly exon 19 deletions (66.66%) and exon 21 L858R mutations (23.80%). NGS revealed additional mutations in TP53 (27%), KRAS (19%), and EGFR (14%), along with clinically significant alterations in MET, ALK, and ROS1. Mutation rates differed by sex, age, and smoking status, with TP53 and KRAS mutations more common in male smokers. EGFR mutation rates were higher than in European populations but lower than in Asian cohorts.

Conclusion:

This study provides a comprehensive molecular profile of NSCLC in Moroccan patients, emphasizing the importance of genomic diversity in guiding personalized treatments. These findings highlight the need for enhanced molecular diagnostic capacity and bioinformatics infrastructure in Morocco to improve patient outcomes.

Keywords: Non-small cell lung cancer, Next-generation sequencing, EGFR mutations, TP53, KRAS, Genomic diversity, Personalized therapy, Moroccan population

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Biography:

I am a molecular biologist specializing in oncology and bioinformatics, with a focus on genomic profiling and next-generation sequencing technologies. My research aims to identify genetic alterations in lung cancer to inform precision medicine and improve therapeutic strategies. I have presented my work at national and international conferences and contributed to publications advancing the understanding of cancer genomics in underserved populations. I am passionate about integrating innovative molecular diagnostics into clinical practice to enhance patient outcomes.

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Microsurgical Flow Reconstruction Targeting Adventitial Layer for Long-Segment Cervical ICA Tubular Stenosis Accompanying with Distal Grade 2 or 3 Kinking: Clinical Outcomes of 19 Cases

Abstract

Objective: To evaluate the efficacy of perivascular sympathectomy in managing long-segment tubular stenosis of the cervical segment (C1) internal carotid arteries (ICAs) accompanying Grade 2 or 3 kinking distally. Due to the lesion's deep and distal location, conventional medical and endovascular interventions and proximal to distal anastomosis or bypass procedures may not be viable options for this condition.

Methods: We retrospectively analyzed the clinical outcomes of 19 patients (10 males, 9 females; age range 43–66 years) who underwent perivascular sympathectomy for long-segment (>5 cm) tubular stenosis of the cervical ICA, co-occurrence with distal Grade 2 or 3 kinking, between 2017 and 2022. The authors investigated the symptoms such as hemiparesis, motor dysphasia, focal epileptic seizures, tinnitus, and migraine attacks associated with transient ischemic attacks (TIAs) pre- and postoperatively at the 1,3,6,12,24 month follow-up. Radiological assessment and follow-up were conducted using MR/CT angiography and CT/MR perfusion studies. Paired t-tests were used to compare preoperative and postoperative measurements. Significance was set at $p<0.05$. Analyses were performed using SPSS version 26.0.

Results: Postoperatively, 8 out of 9 migraine sufferers (88.9%) reported complete cessation of symptoms, while one patient (11.1%) experienced a reduction in frequency and intensity. In cases of epileptic seizures, 5 out of 6 patients (83.3%) reported complete resolution, with one patient (16.7%) experiencing reduced seizures. All 15 patients (100%) with initial hemiparesis (40–50% loss of motor function) and 8 with motor dysphasia showed complete recovery postoperatively. Additionally, 8 out of 10 patients (80%) with tinnitus showed significant improvement, while two (20%) reported no change. No TIA attacks were observed among the patients during the mean two-year follow-up period.

Conclusion: Adventitia layer-focused arteriolysis and perivascular sympathectomy have demonstrated promising results in alleviating symptoms and preventing recurrent cerebrovascular events in this cervical ICA pathology. These findings support the potential of this procedure as an effective treatment option for this challenging vascular condition.

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