

Is the beauty chip associated with the pathology of the larynx and voice?

Andrea Maria Campagnolo^{a,*}, Michael Benninger^b,
Jaqueline Prinston^c, Vinicius Nickel^a

^a Departamento de Otorrinolaringologia, Universidade do Estado do Rio de Janeiro (UERJ), Rio de Janeiro, RJ, Brazil

^b Department of Otolaryngology, Cleveland Clinic, Cleveland, USA

^c Departamento de Otorrinolaringologia, Cesgranrio, Rio de Janeiro, RJ, Brazil

E-mail address: amcampag@gmail.com

(A.M. Campagnolo)

Objective: To determine the prevalence of laryngeal lesions in the examination of videolaryngostroboscopy scans in singers and actresses using intradermal hormonal implants.

Design: Retrospective study of professional singers and actresses who used intradermal hormonal implants and consulted at an otorhinolaryngology outpatient clinic for vocal evaluation.

Methods: Review of medical records of professional singers or actresses who consulted at the Otorhinolaryngology outpatient clinic of HUPE between 2017 and 2019. The fundamental frequency was measured in all patients and compared with historical norms, and the prevalence and character of laryngeal alterations identified in videostroboscopy were independently evaluated by 2 laryngologists and described.

Results: Ten actresses and singers who used intradermal hormonal implants were identified. All patients had evidence of Reinke's edema and all had high RSI scores suggestive of possible reflux. Seven patients had vocal fold lesions (5 cysts, 1 vocal nodule and one pseudocyst). The mean fundamental frequency was below the published norms (188 Hz compared to 212 Hz), but these differences were not statistically significant and may be due to vocal fold lesions, reflux or Reinke's edema.

Conclusion: A specific impact of hormonal implant chips on fundamental frequency or vocal pathology could not be identified in this study. The findings, however, that all patients presented Reinke's edema and other vocal lesions may suggest that there is a relationship between these implants and vocal pathology.

Keywords: Voice; Professional voice; Larynx; Voice quality.

<https://doi.org/10.1016/j.bjorl.2022.10.042>

Dissociation between vHIT and caloric test: A marker of Menière's disease? – A systematic review

Jonas Belchior Tamanini^{*},

Maria Gabriela Bonilha Vallim Carbinatto,

Guilherme Paiva Gabriel, Raquel Mezzalira, Guita Stoler,
Carlos Takahiro Chone

Departamento de Otorrinolaringologia e Cabeça e Pescoco, Universidade Estadual de Campinas (Unicamp), Campinas, SP, Brazil

E-mail address: jonastamanini@hotmail.com

(J.B. Tamanini)

Objective: To analyze through a systematic review and meta-analysis the proportion of patients with Menière's dis-

ease who present altered caloric and vHIT tests and to determine the prevalence of dissociation altered caloric test and normal vHIT in the diagnosis of Menière's disease.

Methods: The literature search was performed without restriction regarding the publication period on indexed data platforms. Articles evaluating patients with Menière's disease who underwent caloric test and vHIT were included. Two researchers independently conducted the analysis of the articles, promoting the selection and extraction of data, following the recommendations of the PRISMA method. In case of disagreement during the selection process, a third evaluator was included for analysis. After data extraction, the study consisted of two stages. In a first analysis, the objective was to evaluate the prevalence of patients with Menière's disease who presented alterations in caloric and vHIT tests alone. On the other hand, in a second moment, the objective was to evaluate the prevalence of the combination of results of these two tests, through the combination of 04 groups: (1) caloric test and normal vHIT; (2) altered caloric test and normal vHIT; (3) calic and vHIT test altered; (4) normal caloric proof and altered vHIT.

Results: We included 12 articles from a total of 427 initially selected studies, published between 2014 and 2021, with a total of 708 patients evaluated and mean age of 52.72 years. The prevalence of patients with Menière's disease with altered caloric test was 64% (95% CI = 57–71%), while the prevalence of altered vHIT was only 28% (95%CI = 16–40%). The prevalence of altered caloric test dissociation + normal vHIT was 47% (95% CI = 37–57%).

Discussion: The dissociation of results in the caloric and vHIT test may be justified by the anatomophysiology of the ampolar crest, since the type II hair cells, with peripheral location, are responsible for low frequency stimuli and acceleration and are selectively affected in patients with Menière's disease. Thus, it is possible that Menière's disease causes an impairment in the vestibular apparatus responsible for processing low frequency responses.

Conclusion: The head-impulse test video and the caloric test consist of valuable tools for vestibular evaluation. The dissociation of findings between these two tests in patients with Menière's disease was more prevalent in this meta-analysis and may be the result of tonotopia of ciliary cells specialized in the ampolar crest, providing a possibility for the diagnosis of patients with this otoneurological condition.

Keywords: Menière's disease; Caloric test; Head-impulse test video; Ocular vestibule reflex.

<https://doi.org/10.1016/j.bjorl.2022.10.043>

Anatomic and radiological study of the uncinat process: A paradigm break

Beatriz Luiza de Costa Remor^{a,*},

Maria Helena Salgado Delamain Pupo Nogueira^a,

Ana Taise de Oliveira Meurer^a, Carolina Pontes Lima^a,

Rainer Guilherme Haetinger^b, Aldo Eden Cassol Stamm^a

^a Hospital Edmundo Vasconcelos, São Paulo, SP, Brazil

^b Hospital Beneficência Portuguesa, São Paulo, SP, Brazil

E-mail address: beatrizremor@gmail.com

(B.L. de Costa Remor)

Objective: To radiologically determine the anatomical variations of the upper region of the uncinat process.

Methods: This is a cross-sectional study in which the research subjects are skulls. Computed tomography (CT) of the paranasal sinus of each skull were obtained. And, after that, the different sites of anatomical correlation of the upper region of the bilaterally uncinated process from anterior to posterior were analyzed in the coronal plane.

Results: When analyzing computed tomography, the PU presented fixations on the papyracea lamina, middle turbinate, skull base and interfrontal septum. It was observed that the orbit was the place where the upper fixation was most common. When analyzing the number of fixations on each side, the skulls presented from a single fixation to five simultaneous fixations on the same side.

Discussion: PU is the most important and constant milestone in the osteomeatal complex of the middle meatus, which is the key area for functional endoscopic surgery of the paranasal sinus. And among the bone structures that delimit the recess of the frontal sinus, the upper fixation of the PU is the most important. The classification of the upper PU fixation originally suggested by Stammberger and Hawke, who evaluated TCs with thick cuts, described 3 possible upper fixations, considering that pu is included in a single point. The uncinated process is part of the ethmoid bone and, therefore, there is no insertion in the ethmoid bone, but rather variation of anatomical presentation and its relationships with other structures of the ethmoid itself. Thus, pu can be related to the papyraceal lamina, middle turbinate and anterior skull base, in addition to others already described.

Conclusion: The uncinated process is part of the ethmoid bone and there are multiple variations of the anatomy of its upper region in the ethmoid bone itself and, therefore, there is no applicability in classifying them.

Keywords: Paranasal sinuses; Uncinate process; Anatomy; Radiology; Sinsitis.

<https://doi.org/10.1016/j.bjorl.2022.10.044>

Changes on cognitive performance after cochlear implantation in adults and older adults: A systematic review and meta-analysis

Rogério Hamerschmidt^{a,*}, Vanessa Mazanek Santos^a, Flavio Magno Gonçalves^b, Cristiano Miranda de Araujo^b, Adriana Bender Moreira de Lacerda^b

^a Programa de Pós-graduação em Clínica Cirúrgica, Universidade Federal do Paraná (UFPR), Curitiba, PR, Brazil

^b Programa de Pós-Graduação em Distúrbios da Comunicação, Universidade Tuiuti do Paraná, Curitiba, PR, Brazil

E-mail address: rogeriohamer@hotmail.com
(R. Hamerschmidt)

Objectives: To critically assess the status of the literature on cognitive outcomes after cochlear implantation in adults and older adults.

Design and methods: Studies were identified by searching PubMed/Medline, Scopus, Lilacs, Web of Science, Livivo, Cochrane Library, Embase, Psycinfo, and gray literature. No restrictions were imposed regarding language, publication date, or publication status. The studies design included were randomized clinical trials, non-randomized clinical trials,

quasi-experimental and cohort studies. Eligibility criteria were as follows: (1) the study sample included adults aged 18 or over with severe to profound bilateral hearing loss, (2) the participants received a multi-electrode cochlear implant, and (3) a cognitive test was performed before and after implantation. Risk of bias was assessed using the ROB, ROBINS-I and MASTARI tools (Joana Briggs Institute), depending on the type of study. Meta-analyses of random effects were performed for the outcomes of interest. The level of evidence was assessed using the Grading of Recommendations Assessment, Development and Evaluation (GRADE).

Study sample: Out of 1830 retrieved records, 16 were found eligible (11 non-randomized clinical trials, 3 randomized clinical trials and 2 cohort studies).

Results: In the AlaCog test, with the overall effect improvement after 6–12 months postoperatively [MD = -46.64; 95% CI = -69.96 - -23.33; I² = 71%]. Although the global effect demonstrates statistical significance, the Flanker, Recall, Trail A and n-back test domains did not show statistical significance ($p > 0.05$). For the MMSE, a subgroup analysis was performed, based on postoperative time, but there was no statistical significance in any of the times evaluated [MD 0.63; 95% CI = -2.19 - 3.45; I² = 88%]. For the TMT test, the analysis was subdivided based on the postoperative period, presenting a significant global effect, with a decrease of approximately 9 s in the processing speed in the postoperative period [MD = -9.43; 95% CI = -15.42 - -3.44; I² = 0%].

Conclusion: Hearing loss rehabilitation with cochlear implants may provide positive impacts on cognitive domains. Well-designed studies with longer follow-up periods are necessary to verify whether cochlear implantation influences cognition positively in older adults along the time. Development of new cognitive assessment tools in hearing-impaired individuals is stimulated.

Keywords: Cochlear implantation; Cognition; Older adults; Adults; Systematic review; Cognitive outcomes; Cognitive assessment; Profound hearing loss; Cochlear implant.

<https://doi.org/10.1016/j.bjorl.2022.10.045>

Pneumococcal prevalence in the media ear and nasopharynx of children with acute otitis media

Denise Rotta Ruttkay Pereira^{*}, Sady Selaimen da Costa, Mariana Mott, Vlademir Cantarelli, Maria Beatriz Rotta Pereira, Manuel Antonio Ruttkay Pereira
Hospital de Clínicas, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil
E-mail address: derotta4@hotmail.com (D.R. Pereira)

Objective: To record the presence of *S. pneumoniae* in middle ear effusion (OMe) and nasopharynx (NF) of children with recurrent acute otitis media (OMAR), documenting and analyzing differences that could be related to the use of two different types of pneumococcal vaccine (PCV10 and PCV13).

Methods: We analyzed 278 OM And 139 NF samples obtained from 139 children (ages 6 months and 9 months and 10 months; median of 21 months) submitted to myringotomy and ventilation tube insertion by OMAR, between June 2017 and June 2021. Patients had no signs of acute otitis media