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 uncinate 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 papyaceal lamina, middle turbinat 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.

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

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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.

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

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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