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Hearing preservation and cochlear implants according to inner ear approach: Multicentric evaluation.

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Introduction: Electroacoustic stimulation is an excellent option for people with residual hearing in the low frequencies, who obtain insufficient benefit with hearing aids. To be effective, the subject's residual hearing should be preserved during cochlear implant surgery.

Objectives: To evaluate the hearing preservation in patients that underwent implant placement and to compare the results in accordance with the approach to the inner ear.

Methods: 19 subjects underwent a soft surgical technique, and the electrode MED-EL FLEX™ EAS, designed to be atraumatic, was used. We evaluated pre- and postoperative tonal audiometric tests with an average of 18.4 months after implantation, to measure the rate of hearing preservation.

Results: 17 patients had total or partial preservation of residual hearing; 5 had total hearing preservation and two individuals had no preservation of hearing. The insertion of the electrode occurred through a cochleostomy in 3 patients, and in 2 of these there was no hearing preservation; the other 16 patients experienced electrode insertion through a round window approach. All patients benefited from the cochlear implant, even those who are only using electrical stimulation.

Conclusion: The hearing preservation occurred in 89.4% of cases. There was no significant difference between the forms of inner ear approach.

Biography

Alexandre Caixeta Guimaraes, M.D., graduated in 2009 from the University of Campinas (UNICAMP), Brazil, received his title of specialist in otolaryngology from UNICAMP and concluded his fellowship in neurotology and otological surgery from UNICAMP. He is currently concluding his Ph.D. in medical sciences at UNICAMP, is a member of the Division of Otolaryngology Head and Neck Surgery at the University of Campinas, has published more than 45 papers in reputable journals and has been serving as an editorial board member and reviewer of several international journals.

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