

Mean thresholds for 0.5, 1, 2, 3 and 4 KHz frequencies before and after implantation are obtained for r VSB Coupler group and no-coupler VSB group. For SNHL air conduction is analysed whereas bone conduction is considered for conductive and mixed hearing loss.

Besides, functional gain and discrimination of disyllabic words at 65 dB in quiet is analyzed.

Results: Surgeon subjective perception is that Couplers simplify the surgical process, allow a more stable coupling and minimize the risks of post-surgical FMT movement as well. Focusing on SNHL patients, the mean hearing thresholds for the air conduction before and after the surgery were respectively 59.25 dB and 29.75 dB for the no-Coupler VSB group, opposite to 63 dB and 24.75 dB for the VSB-Coupler group; and the mean functional gain was 30.25 dB for the no-Coupler VSB group, opposite to 38.25 dB for the VSB-Coupler group. In the disyllabic words test, difference was 78% for the no-Coupler VSB group and 82% for the VSB-Coupler group. For conductive-mixed hearing loss patients, mean hearing thresholds for the air conduction before and after the surgery were 84.75 dB and 85 dB respectively for the no-Coupler VSB group, opposite to 85 dB and 30.75 dB for the VSB-Coupler group; and mean functional gain was 47.5 dB for the no-Coupler VSB group, opposite to 53 dB for the VSB-Coupler group

Conclusions: Surgical procedure is simpler for coupler VSB for both indications (SNHL and conductive and mixed hearing loss). A greater tendency to improve auditory outcomes is described for VSB Coupler group vs no-Coupler VSB group.

doi:10.1017/S0022215116006216

ID: IP125

Aberrant internal carotid artery in the middle ear: a cause of aural fullness

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Learning Objectives: Otolologists should be aware of vascular malformations of the temporal bone. Aberrant ICA in the middle ear is a very rare finding and its damage during surgical procedures can lead to severe complications. When there is a suspicion of a middle ear vascular anomaly, CT scan of the temporal bone is the standard. It should be performed before any middle ear surgery, to avoid complications related to misdiagnosis. Endoscopic examination improves diagnosis of middle ear pathology.

Introduction: Aberrant internal carotid artery (ICA) in the middle ear is a rare vascular anomaly of the temporal bone and its diagnosis can be difficult because the symptoms and signs are often nonspecific.

Accidental injury during myringotomy or other middle ear surgeries, can lead to severe complications.

Methods: We report a case of a 47-year-old woman who complained of fullness in the right ear for 6 months, without hearing loss or tinnitus. She had no previous otological pathology.

Endoscopic otoscopy revealed a slight white-rosy mass behind the inferior half of the tympanic membrane.

A CT scan of the temporal bone confirmed aberrant ICA passing through the middle ear. A magnetic resonance angiography was also performed.

The patient was informed about the diagnosis and the possible complications of middle ear interventions, and regular follow-up was arranged.

Results: Color changes on otoscopic examination may suggest the presence of a vascular anomaly, as sometimes seen in aberrant ICA, due to its intratympanic course.

These features were seen in the CT scan: the ICA ran more laterally, there was an enhanced mass in the hypotympanum and a deficient bony plate along the tympanic portion of the ICA, bulging into the tympanic cavity.

The magnetic resonance angiography showed a lateralized right ICA with a reduced diameter.

Conclusions: Aberrant ICA in the middle ear should be identified before middle ear surgery, because misdiagnosis could lead to surgical complications: hemorrhage, stroke or death may occur if the vessel is damaged.

Clinical diagnosis is difficult because the symptoms and signs are nonspecific or absent and in some cases it can be discovered during middle ear surgery. However, symptoms such as pulsatile tinnitus or conductive hearing loss may be present.

Most authors recommend a conservative approach. If an asymptomatic aberrant ICA in the middle ear is diagnosed any physician involved in the patient's care should be informed.

doi:10.1017/S0022215116006228

ID: IP126

The impact of postoperative antrum pneumatization on hearing outcome after canal wall-down tympanoplasty with soft-wall reconstruction for cholesteatoma

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Learning Objectives: It might be enough to concentrated on making the pneumatized cavity in the tympanic cavity alone. Further studies with a larger sample size will be needed to confirm it.

Introduction: It is not completely clear whether the pneumatized antrum is critical for good hearing in patients operated on for acquired cholesteatoma with canal wall-down type III (-c or -i) tympanoplasty with soft-wall reconstruction (CWDT-SWR). We thus investigated the correlation of pneumatization of the antrum with hearing outcome.

Methods: Eligible patients were: (1) CWDT-SWR was performed for the past four years; (2) ossiculoplasty was performed by the present author; (3) > 1 year follow-up. Patients who had a past history of an otologic operation in