Hearing outcome of reverse stapedotomy in otosclerotic patients

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Abstract:

Otosclerosis is a localized hereditary disorder affecting endochondral bone of the otic capsule that is characterized by disordered resorption and deposition of bone. An otosclerotic lesion consists of areas of bone resorption, new bone formation, vascular proliferation and a connective tissue stroma. Otosclerosis occurs at certain sites of predilection within the otic capsule and foci of otosclerosis are sharply demarcated from the surrounding bone of the otic capsule . Clinically, otosclerotic patients present with progressive hearing loss. If the otospongiotic process primarily involves the stapes, the hearing loss is conductive. The most common area for stapedial fixation is the anterior crura. The process may progress to involve the entire footplate or may continue anteriorly toward the cochlea, causing a sensorineural hearing loss .

Otosclerosis is an autosomal-dominant hereditary disease with variable penetrance and expression. Two thirds of patients are women. The hearing loss usually begins in the late teens or early 20s, but may not occur until the 30s or early 40s. At the House Ear Clinic, the youngest patient with surgically confirmed otosclerosis was 6 years old. It may be accelerated by pregnancy. Many female patients first report hearing loss during or shortly after their first pregnancy .

Stapedotomy Creation of a calibrated fenestration in the footplate of the stapes bone through which is placed the piston-shaped end of a prosthesis, the other end of which is attached to the long process of the incus bone (3). It is line of the most acceptable treatment of otosclerosis; it is named stapedotomy to differentiate it from stapedectomy which consists of partial removal of the stapes footplate and more precisely is called incus stapedotomy to differentiate it from malleus stapedotomy

Typically the patient presents with a history of slowly progressive asymmetric hearing loss that is usually bilateral. Because of its insidious onset, the patient is often unaware of the hearing loss until it is brought to his or her attention by friends or family. Unilateral hearing loss may occur in 15% of patients. The disease may remain confined to one particular ear; the other ear may become involved later. Hearing loss typically becomes apparent when the loss reaches 25–30 dB and the patient has difficulty understanding speech.

Patients characteristically have low-volume (soft) speech because they hear their own voices by bone conduction and consequently talk quietly. The ability to hear better in noisy surroundings (paracusis) during the early stages of hearing impairment is highly suggestive of otosclerosis. Tinnitus is a common complaint and may be an indication of sensorineural degeneration. Fluctuation is uncharacteristic but may occur during times of hormonal instability (eg, during pregnancy). Patients rarely have complaints of dizziness or vertigo.

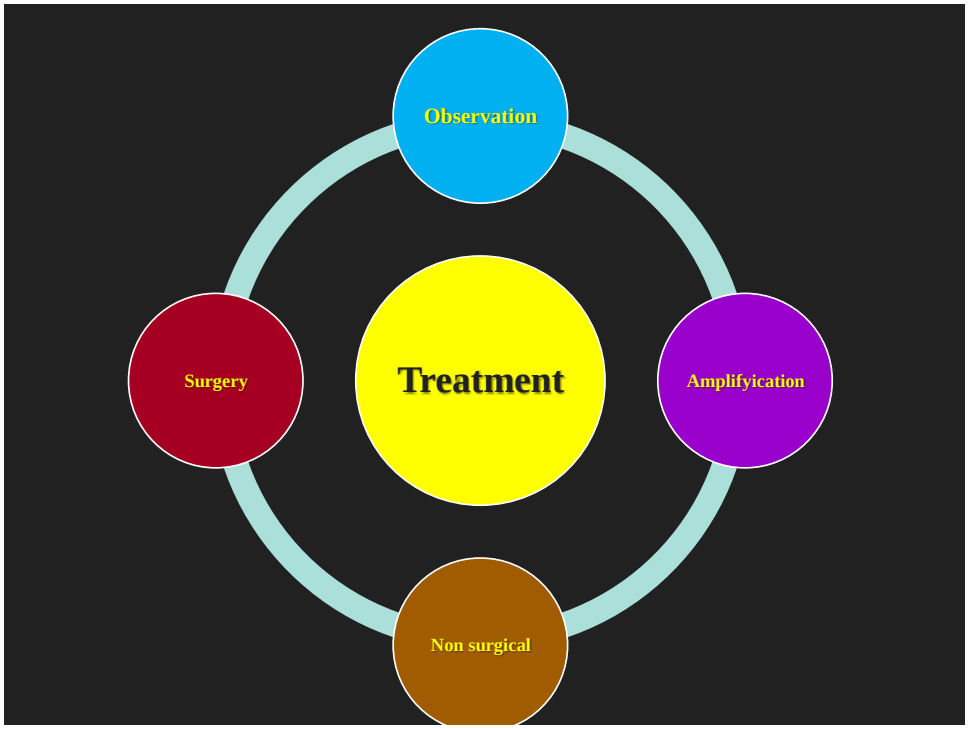


Figure 1: Treatment plan of otosclerosis

Biography:

Goran Baban is Otorhinolaryngologist, Head and Neck Surgeon holding both Iraqian Board and European Board of ENT ,Head and neck surgery with subspeciality in Otology.now working in Sulaimani City in Public Hospital and Teacher in Medical college of Sulaimany University. He has expertise in Ear surgery and great experience in otosclerosis and ossiculoplasty as he is supervisor of Msc degree ENT student and experience in more than thousand ear surgery.this abstract is of a new thesis on outcome of Hearing after reverse stapedotomy which is new technique and approach and still he did not publicaite this thesis.