Labyrinthectomy

Indications

Nonselective vestibular ablation (in cases with a nonserviceable hearing on the side of involvement) in Meniere's disease. Reserved for incapacitating cases refractory to medical management. When functional hearing exists, procedures that spare hearing is preferred because of the high incidence of bilateral involvement.

Labyrinthectomy is an effective surgical procedure for the management of poorly compensated unilateral peripheral vestibular dysfunction in the presence of an unserviceable hearing ear.

Relief from vertigo is achieved at the expense of the residual hearing in the ear to be operated. Hence, the procedure is reserved for patients with unserviceable hearing.

The basic principle of labyrinthectomy is to symmetrically open all the semicircular canals and vestibules; the landmarks should be preserved until the end of labyrinthectomy. After exposing all the ampullae and vestibules, the five individual groups of neurosensory epithelia are excised under direct visualization.

This is performed to eliminate abnormal vestibular input from the diseased ear.

A case-control pilot study included eight patients undergoing surgical labyrinthectomy, divided into two groups: four patients who received pre-operative intratympanic gentamicin and four patients who did not. The post-operative six-canal video head impulse test responses and length of in-patient stay were assessed.

The average length of stay was shorter for patients who received intratympanic gentamicin (6.75 days; range, 6-7 days) than for those who did not (9.5 days; range, 8-11 days) ($p = 0.0073$). Additionally, the gentamicin group had normal post-operative video head impulse test responses in the contralateral ear, while the non-gentamicin group did not.

Pre-operative intratympanic gentamicin improves the recovery following vestibular schwannoma resection, eliminating, as per the video head impulse test, the impact of labyrinthectomy on the contralateral labyrinth [1].

Unclassified

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