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Learning Objectives:

Objective: To explore auditory outcome of cochlear implantation (CI) performed in patients diagnosed with vestibular schwannoma (VS) in the only-hearing ear.

Patients and methods: A retrospective analysis of three cases is carried out. All study participants have a long history of hearing loss on the one side and a newly-presented symptom of a gradual hearing loss due to VS on the other side, who then received ipsilateral, contralateral or bilateral CI. Imaging examination and audiological tests were carried out before operation. Hearing outcomes were measured by the pure tone audiogram (PTA) and the open set speech discrimination score (SDS). Mean follow-up time was 18 months.

Results: During follow-up period, none of the three patients had a remarkable improvement in their speech recognition, whether got unilateral or bilateral CI. However, PTA showed positive results in all of the three cases, which conferred an awareness of environmental sounds and was an adjuvant to lip reading. The patient with bilateral CI showed significantly better performance on the open set speech perception compared to the other two patients with unilateral CI, especially in noise.

Conclusions: CI meets the goals of lower PTA, improved lip reading and perception of environmental sounds. However, SDS is not significantly improved after CI. Bilateral CI is more beneficial than unilateral CI on either side.

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Retroauricular infections in patients with congenital aural stenosis

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Learning Objectives:

Objectives: To identify the retroauricular infection occurring in patients of congenital aural stenosis (CAS) with those in first branchial cleft fistula. To reduce the misdiagnosis and make right treatments.

Design: Retrospective review.

Subjects: 105 CAS patients who underwent meatoplasty with canalplasty and/or tympanoplasty between Jan 2011 and June 2014.

Results: During the surgery, of the 105 patients, no cholesteatoma was found in 26 patients, age from 2 yr to 29 yr, the median age was 11 yr. Cholesteatoma of the external ear canal (EC) was associated in 79 patients, age from 2 yr to 45 yr, the median age was 10 yr. Of these 79 patients, 18 had retroauricular infections, age from 3 yr to 38 yr, the median age was 6 yr. Of the 105 patients, 2 patients had preauricular fistula, 3 had first branchial fistula, 4 patients with retroauricular abscess were misdiagnosed as the first branchial cleft fistula. The narrow external auditory meatus, computed tomography and magnetic resonance imaging made it easier to identify the two diseases. Drainage of the abscess was done at the first stage to control the infections for both diseases. The second stage of the operation was canalplasty for those CAS with EC. While for the first branchial cleft fistula, the surgeons paid more attention to the facial nerve.

Conclusion: The retroauricular infections occurring in CAS should be identified with the first branchial cleft fistula. The canalplasty of CAS associated with EC will get a satisfactory results even complicated with severe infections.