Sudden Sensorineural Hearing Loss (SSHL)

Sudden sensorineural hearing loss, as the name implies, is the sudden loss of hearing in the ear or the hearing nerve. It can occur over a period of hours, up to three days, and causes a noticeable hearing loss for most sounds. Many patients wake up with the hearing loss, usually unilateral, with varying severity.

Other accompanying symptoms may include:
- Distortion of sounds in the poorer hearing ear
- Tinnitus
- Imbalance, dizziness
- Aural Fullness
- Nausea/vomiting
- Anxiety

The hearing loss may be temporary or permanent. There is a low incidence of sudden sensorineural hearing loss, with 5-20 cases per 1000001. It occurs most often in people aged 30-60 years old. Both males and females are equally affected1.

**WHAT CAUSES IT?**

There are many potential causes of sudden sensorineural hearing loss1,2. In many cases, the specific cause of the hearing loss remains unknown.
Causes of sudden sensorineural hearing loss include:
- Idiopathic (unknown)
- Viral infections of the cochlea
- Blood flow abnormalities of the cochlea
- Immune disorders (autoimmune inner ear disease)
- Metabolic causes
- Toxic causes (Ototoxic medications or exposure to ototoxic solvents)
- Trauma or head injury
- Acoustic neuroma

OUTCOMES GENERALLY IMPROVE IF
- The hearing loss is accompanied by tinnitus
- The hearing loss is worse for low pitched sounds than high pitched sounds
- The hearing loss is considered to be mild or moderate in degree
- Treatment is received within 7 days.

TREATMENT
Steroids (Prednisolone) are commonly administered in cases where the cause of the sudden hearing loss is unknown. Steroids have been shown to significantly improve the recovery of hearing. They work by reducing inflammation and swelling of the cochlea.

RECOVERY
Recovery of the hearing can often depend on a number of factors. Prompt medical treatment (and diagnosis) will ensure the best chances of recovery. Some literature reports that in 50% of cases, hearing can spontaneously recover.

Often, the greatest recovery in hearing will occur 1 – 2 weeks after the incident, however, some patients may have an improvement over a 12 month period. Patients with a lesser degree of hearing loss often have greater improvement in hearing than those with greater degrees of hearing loss.

LONG TERM OUTCOMES
In some cases hearing does not recover either spontaneously or with medical treatment. In cases such as this a hearing device may be an option for the poorer hearing ear.

RECOMMENDATIONS
If a patient presents with unexplained sudden onset hearing loss, this should be treated as a medical emergency and urgent audiological assessment be performed. Prioritised hearing assessments should be sought for patients within this risk group and treating physicians advised of outcomes.

Medical oversight of The University of Melbourne Audiology clinic is provided by an Ear Nose and Throat surgeon, allowing for immediate access to medical opinion regarding results and the management.

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