Sudden Sensorineural Loss in Primary Care

An Often-Missed Diagnosis

Alan K. Mirly, MBA, PA-C[a,*], Jeff E. Brockett, EdD, CCC-A[b]

KEYWORDS

- Sudden sensorineural hearing loss • Intratympanic steroid • Primary care
- Sudden hearing loss

KEY POINTS

- Sudden sensorineural hearing loss (SSNHL) is commonly overlooked in primary care and may lead to permanent hearing loss.
- SSNHL should be differentiated from other types of hearing loss.
- Proper history and physical examination can help to identify SSNHL and may improve diagnosis of conductive losses.
- Most patients will initially present to primary care with sudden hearing loss. Identification of SSNHL and consideration for treatment should be made at the first visit.
- Treatment of SSNHL is a controversial topic without strong evidence that treatment offers significant improvement.

INTRODUCTION: A CASE OF SUDDEN HEARING LOSS

A healthy 56-year-old gentleman arrives in the provider's office on a Friday afternoon at 4:30 PM with report of sudden hearing loss.[1–3] He believes this started last night while he was helping his grandson with his homework. He states that he was having difficulty hearing his grandson with his right ear and heard a buzzing noise in the same ear. He assumed his grandson was not speaking clearly and he went to bed. This morning he answered the phone using his right ear as he typically does but could not make out anything. He has had some continued buzzing in the right ear with no improvement throughout the day. He also has a feeling of fullness in the right ear but denies vertigo. He denies any previous hearing loss and has had no recent or known prior noise trauma.

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[a] Pocatello Ear, Nose & Throat, Department of Physician Assistant Studies, Idaho State University, Pocatello, ID, USA; [b] Department of Communication Sciences and Disorders, Idaho State University, Pocatello, ID, USA
* Corresponding author.
E-mail address: mirlalan@isu.edu

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This case represents a frequent dilemma faced by primary care providers and demonstrates a prototypical patient with an idiopathic sudden sensorineural hearing loss (ISSNHL). An ISSNHL can occur at any age; however peak incidence is the fifth and sixth decade, affecting men and women equally.[4] Fullness in the ear is almost always a presenting symptom and is commonly accompanied by tinnitus in 79%; vertigo in 31%[5]; and bilateral presentation, which is far less common, in 4.9% of cases.[6] The presenting concerns are the type of hearing loss, the best treatment options currently available, and what the patient should expect following this initial visit. The problem is that only 60% of primary care providers routinely assess for hearing loss,[7] indicating a potential clinical skills deficit and the impeding diagnosis of a potentially permanent sensory loss.

SUDDEN HEARING LOSS DEFINED

Sudden hearing loss is a generic term for hearing loss that occurs over a short time, typically less than 72 hours. A sudden sensorineural hearing loss (SSNHL) is most commonly defined as a hearing loss of 30 dB or greater at 3 consecutive frequencies,[8] occurring in less than 72 hours. Providers must first look for any underlying conditions that may account for the hearing loss. Retrocochlear processes, such as vestibular schwannomas or a stroke, account for less than 1% of cases, whereas other identifiable causes (eg, an inner ear disorder, trauma, infection, autoimmune disease, or ototoxic medication) account for 10% to 15%.[9] If no underlying conditions can be identified that account for the SSNHL, then providers can make the diagnosis of an ISSNHL.

ISSNHLs are controversial for several reasons: there is no definitive cause, not treating could leave a patient with a lifelong disability, and the standard treatment does not have compelling randomized controlled trial data to support it. The American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) has established clinical practice guidelines (CPGs) designed to increase diagnostic accuracy, minimize unnecessary tests, provide consistent treatment, and improve outcomes.[10]

HISTORY

Patients with sudden hearing loss typically report symptoms of aural fullness, tinnitus, and possibly vertigo. Individually, these symptoms are not necessarily worrisome and might not raise any concerns on the initial presentation. In fact, it is common for someone with a cerumen impaction or an effusion to have decreased hearing; aural fullness; tinnitus; and, on rare occasions, even vertigo. Therefore, it is important to rule out any history of head trauma, recent ear infections, fevers, or systemic illness. Patients with an ISSNHL will commonly describe waking up with no hearing in 1 ear or perceiving sounds as very distorted like a blown speaker.[9] They will also report that these symptoms came on abruptly and have been persistent since onset. However, patients are unable to describe their symptoms to a degree that allows differentiation of a conductive hearing loss (CHL) from a sensorineural hearing loss, so physical examination skills are key to differentiating between the 2 categories of hearing loss in the primary care setting.

In the case previously described, the patient has no other health issues. He has no history of working in noisy environments, no recent noise exposure, and he specifically denies use of firearms. He denies any trauma, ear drainage, ear pain, or fever. He has never needed chronic medications and is not currently taking any medications or supplements. He denies any other neurologic changes.