

Management of suspected unilateral idiopathic sudden sensorineural hearing loss in adults

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CLINICAL ASSESSMENT

History

- Onset
- Focal neurology
- Trauma
- Full otologic/vestibular history
- Medication history
- Past medical history including autoimmune conditions
- Systemic symptoms

Examination

- Neuro-otology exam
- Consider full neurological exam

Consider otological, neurological and systemic (infectious, inflammatory or neoplastic)¹ or autoimmune causes of hearing loss²⁻⁴

INVESTIGATIONS

Pure Tone Audiometry (PTA)
(if out of hours, tuning fork test and free field hearing tests and arrange PTA)²⁻⁴

Sensorineural loss

No

Conductive loss

Sensorineural hearing loss of at least 30 dB in three consecutive frequencies over 72 hours or less?^{1-5*}

No

*Clinicians may use their own discretion in treating patients with SNHL of a lesser degree/over a longer time frame as SSNHL

Yes

Suspicious of idiopathic sudden sensorineural hearing loss

Are there features that may indicate an undiagnosed autoimmune condition⁶?

For example,

- Rash and photosensitivity⁷
- Oral, genital, ocular or skin ulcers⁷⁻¹⁰
- Arthritis or synovitis^{7,11}
- Weight loss¹²
- History of visual disturbance^{13,14}
- Recurrent thrombosis¹⁵
- Recurrent fetal loss¹⁵
- Testicular pain¹²
- Myalgia¹²
- Neuropathies¹²
- Dry mucous membranes⁹
- Unexplained cough, dyspnoea or chest pain¹⁶

No

Yes

Request routine MRI Internal Auditory Meatus^{1-4,17}

Perform autoantibody screen

(FBC, ESR, U&Es, Coagulation screen, Antinuclear antibodies, Anticardiolipin antibodies, Lupus anticoagulant, Antineutrophil cytoplasmic antibodies (ANCA), syphilis serology)²⁻⁴

Commence oral steroids after discussing risks and benefits with patient (if refused or contraindicated consider primary intratympanic steroids)

Risks¹⁸

- GI side effects
- Mood changes
- Bruising
- High glucose
- Avascular necrosis of femoral head

Benefits

Spontaneous recovery rates vary between 30-68%^{4,19}, some evidence suggests this can be doubled with oral steroids^{20,21}. Greatest benefit with early treatment³.

Suggested dose:

- Oral prednisolone 1mg/kg/day (max 60mg/day) for 7 days tapered over the next week^{3,4}

60mg daily	Days 1-7	20mg	Day 11
50mg	Day 8	10mg	Day 12
40mg	Day 9	STOP	Day 13
30mg	Day 10		

Repeat PTA within 10-14 days⁴

If no improvement consider salvage intratympanic steroids^{3,4}

If no improvement or steroids declined refer for amplification^{3,17}

MANAGEMENT

Do the history and examination indicate an underlying cause?^{3,4}
i.e. trauma, acute stroke or neurological disorders, systemic or exacerbation of known autoimmune disease³

Yes

Consider alternative diagnosis and treat accordingly

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