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

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

No

Yes

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

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

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

Conductive loss

No

Yes

Suspicous of idiopathic sudden sensorineural hearing loss

Request routine MRI Internal Auditory Meatus14,17

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

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

No

Yes

Are there features that may indicate an undiagnosed autoimmune condition6?

- Rash and photosensitivity7
- Oral, genital, ocular or skin ulcers7-10
- Arthritis or synovitis7,11
- Weight loss12
- History of visual disturbance13,14
- Recurrent thrombosis15
- Recurrent fetal loss15
- Testicular pain12
- Myalgia12
- Neuropathies12
- Dry mucous membranes9
- Unexplained cough, dyspnoea or chest pain16

Yes

No

Perform autoantibody screen (FBC, ESR, U&Es, Coagulation screen, Antinuclear antibodies, Anticardiolipin antibodies, Lupus anticoagulant, Antineutrophil cytoplasmatic antibodies (ANCAs), syphilis serology)2-4

Repeat PTA within 10-14 days4

If no improvement consider salvage intratympanic steroids3,4

If no improvement or steroids declined refer for amplification3,17

MANAGEMENT

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

Suggested dose:
- Oral prednisolone 1mg/kg/day (max 60mg/day) for 7 days tapered over the next week3,4

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

Benefits
Spontaneous recovery rates vary between 30-68%,6-19, some evidence suggests this can be doubled with oral steroids20,21. Greatest benefit with early treatment6.

Risks16
- GI side effects
- Mood changes
- Bruising
- High glucose
- Avascular necrosis of femoral head

COMMENCE ORAL STEROIDS AFTER DISCUSSING RISKS AND BENEFITS WITH PATIENT (IF REFUSED OR CONTRAIRED CONSIDER PRIMARY INTRATYMpanic STEROIDS)

CLINICAL ASSESSMENT

INVESTIGATIONS

MANAGEMENT

No

Yes

Yes

No

Yes

Yes

No
References


