

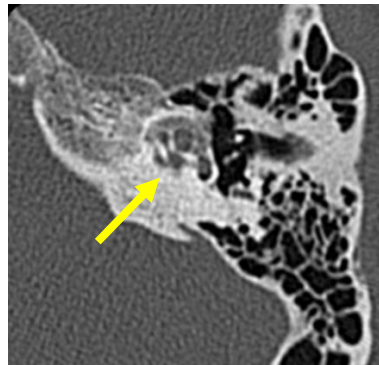
Medical Therapy for Otosclerosis

(By A/Prof Nirmal Patel)

When there is a sensorineural (nerve) component to the patient's hearing loss with otosclerosis, or if there is unexplained nerve hearing loss and a family history of otosclerosis then medical therapies may be indicated.



Normal Left Cochlea



Cochlear Otosclerosis Left Ear – note the loss of bone

Two main classes of medicines are currently recommended:

Sodium Floride

In the active phase of the disease (otospongiosis), sodium floride theoretically enters the abnormal bone in the ear and arrests the disease progression in 70-80% of patients. These medicines are not recommended in children, if pregnant or breast feeding. Always follow the directions of your chemist when taking these medicines and read the drug interaction and side effect profile carefully to understand the risks in your own case.

Medicine names:

[Florical](#) equivalent to 8.75 mg Sodium Floride

[Fluotic](#)

Your chemist may be able to compound 20mg of sodium floride as well.

Side effects of Sodium Fluoride include but are not limited to:

- Skin rash
- Oral ulceration and teeth discoloration
- Nausea, vomiting, decreased appetite
- Constipation
- Maybe increased risk of kidney/ bladder stones

Bisphosphonates

These medicines have replaced the use of sodium fluoride in the treatment of other bone disorders such as Paget's disease, osteoporosis and osteogenesis imperfecta due their affinity to enter bone and reduce the dissolving of hard bone. These medicines are not recommended in children, if pregnant or breast feeding. Always follow the directions of your chemist when taking these medicines and read the drug interaction and side effect profile carefully to understand the risks in your own case.

Medicine names:

Residronate (Drug names Actonel, Residronate Sandoz) – once weekly formulations

Alendronate (APO-Alendronate, Fosamax)

Side Effects of Bisphosphonates include but are not limited to:

- Nausea, abdominal discomfort, stomach and oesophageal inflammation
- Bone, joint or musculoskeletal pain
- Skin inflammation – rashes etc.
- Eye inflammation
- Abnormal heart rhythms (AF)
- Jaw inflammation and ulceration (osteoradionecrosis)
- Thigh bone fractures (very rare)
- Cancer of the oesophagus (very rare)

Other resources:

http://rheumatology.org.au/patients/documents/bisphosphonatesoralAugust2012_000.pdf

<https://arthritisaustralia.com.au/medication-search/bisphosphonates-oral/>