ENTITLEMENT ELIGIBILITY GUIDELINES

OTOSCLEROSIS

MPC 00643
ICD-9 387

DEFINITION

Otosclerosis is a primary disorder of the bone of the otic capsule characterized by new bone formation, often involving the footplate of the stapes.

DIAGNOSTIC STANDARD

Diagnosis by a qualified medical practitioner, and results of audiometric investigation, are required.

ANATOMY AND PHYSIOLOGY

The ear has three small ear bones or ossicles, i.e. the footplate of the stapes (shaped like a stirrup), the malleus and the incus. Otosclerosis is an overgrowth of part of the temporal bone of the skull, just in front of the oval window which lies between the middle ear and the inner ear. The footplate of the stapes, together with the other ossicles, transmits sounds from the eardrum to the inner ear. The footplate bone initially becomes fixed by fibrous tissue and is subsequently replaced by sclerotic bone. Heredity is important in Otosclerosis. A positive family history has been reported in approximately 55% of persons with clinical manifestations of Otosclerosis.

CLINICAL FEATURES

The onset of Otosclerosis is generally during the second and third decades of life, and is determined by noting clinical Otosclerosis based on symptoms of Conductive Hearing Loss. Conductive Hearing Loss is caused by stapedial fixation and is present in approximately ten per cent of all cases. The amount of hearing loss directly relates to the degree of immobilization of the stapedial footplate, i.e. the more rigid the eardrum the greater the hearing loss. The hearing loss may be ignored in the early stages of Otosclerosis.

The disease may also invade the inner ear and cause a pure Sensorineural Hearing Loss, which is called Labyrinthine or Cochlear Otosclerosis.

PENSION CONSIDERATIONS

A. CAUSES AND/OR AGGRAVATION

THE TIMELINES CITED BELOW ARE NOT BINDING. EACH CASE SHOULD BE ADJUDICATED ON THE EVIDENCE PROVIDED AND ITS OWN MERITS.

1. Idiopathic
   The cause of Otosclerosis may be unknown.

2. Heredity
   Heredity is the only known cause, although the genetic inheritance pattern is not clearly established.

3. Inability to obtain appropriate clinical management

B. MEDICAL CONDITIONS WHICH ARE TO BE INCLUDED IN ENTITLEMENT/ASSESSMENT

- hearing loss

C. COMMON MEDICAL CONDITIONS WHICH MAY RESULT IN WHOLE OR IN PART FROM OTOSCLEROSIS AND/OR ITS TREATMENT

- tinnitus

REFERENCES FOR OTOSCLEROSIS

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2. Canada. Department of Veterans Affairs. Medical Guidelines on *Hearing Loss*.

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