

# Forms of vertigo in enclosed tympanum chronic mastoiditis

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## Objective:

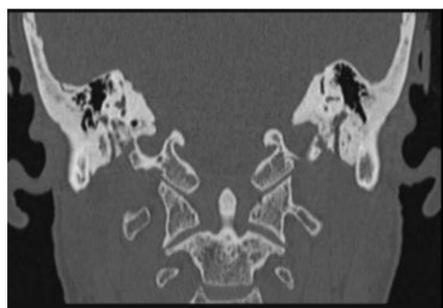
The aim of this paper is to underline two types of vertigo which can be the clinical manifestations of enclosed tympanum chronic mastoiditis: prolonged vertigo, accompanied sometimes by hearing symptoms such as aural fullness or tinnitus and recurrent acute vertigo, lasting from several hours to a day, always accompanied by auditory manifestations (aural pressure, acute hearing loss or tinnitus).

## Materials and Method:

8 patients out of 13 experienced prolonged vertigo lasting more than 24 hours, accompanied by otalgia, tinnitus, hearing within normal limits; 5 of them had various degrees of tubal dysfunction, ranging from mild to severe and 3 of them had normal middle ear pressure. 5 patients out of 13 had Meniere-like vertigo, lasting less than 24 hours, accompanied by tinnitus and hearing loss. All the patients had Eustachian tube dysfunction in the affected ear. CT scans showed reduced transparency of the mastoid cells in the symptomatic ear. Partial mastoidectomy was performed, removing the osteoneogenesis, fibrosis and granulation tissue within Trautmann’s triangle and the region near the sac.



A



B

CT scan: Example of abnormal pneumatization of mastoid cells in a patient with Meniere-like vertigo; axial (A) and coronal (B) sections

## Study design:

The retrospective study was performed on a number of 13 patients who were admitted at the Emergency Room with acute vertigo

## Results:

Remission of the vestibular complaints was obtained in all cases. Hearing remains within normal range in 8 cases. Subnormal hearing persisted for 5 of the admitted patients. All patients manifested abnormal gain of vestibulo-ocular reflex for horizontal canal on the affected side.

## Conclusion:

Vertigo in chronic mastoiditis can sometimes simulate other clinical vertigo such as vestibular neuronitis or Meniere disease. Temporal bone CT scan can indicate abnormalities of mastoid pneumatization. In these cases, the surgical treatment is the curative solution of vertigo remission.

## References:

- Sando I, Ikeda M., The vestibular aqueduct in patients with Meniere's disease. A temporal bone histopathological investigation, *Acta Otolaryngol* 1984 May-Jun; 97(5-6): 558-70.
- Sajjadi, H., & Paparella, M. M. (2008). Meniere's disease. *Lancet*, 372, 406–414.