

## Multiple Thornwaldt Cysts: A rare case.

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### ABSTRACT

We present a case of Multiple Thornwaldt Cysts. After extensive search, we could not find any published record of multiple cysts. Previously published cases show a single cyst at the roof of the nasopharynx.

Tornwaldt's bursae or nasopharyngeal bursae originate at the interface between the embryonic tissue from which the vertebrae develop (the notochord), and the developing foregut. If the opening through which the bursa drains into the nasopharynx becomes obstructed, a Tornwaldt's cyst will develop.

### CASE REPORT

A 55 Years old woman was referred for MRI brain. She was complaining of headaches, nausea in the morning. She had a feeling of nausea most of times and headaches were relieved by sitting up. She was also complaining of migraine type headaches and occipital pain.

MRI Brain findings: No intracranial mass lesion or any other cause of her symptoms was shown. On the inferior most slice of T2 scan, 3 small cysts were incidentally noted at the roof of nasopharynx between longus capitus muscle. The largest cyst measured 4.0mm.

All the cysts were well separated with thin septa.

**Key Words:** Thornwaldt (also spelled as a Tornwaldt and Thornwaldt's) cysts, Nasopharynx, Multiple

Fig. 1: T2 weighted axial MR image shows three high signal lesions at roof of the nasopharynx.

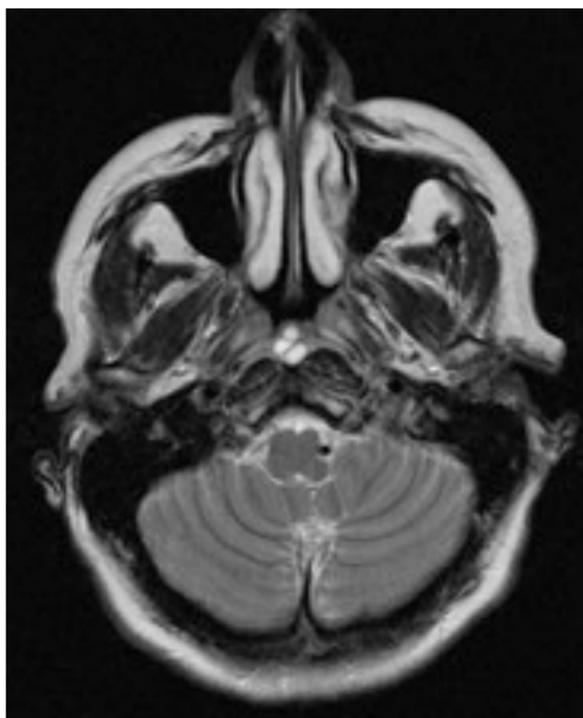
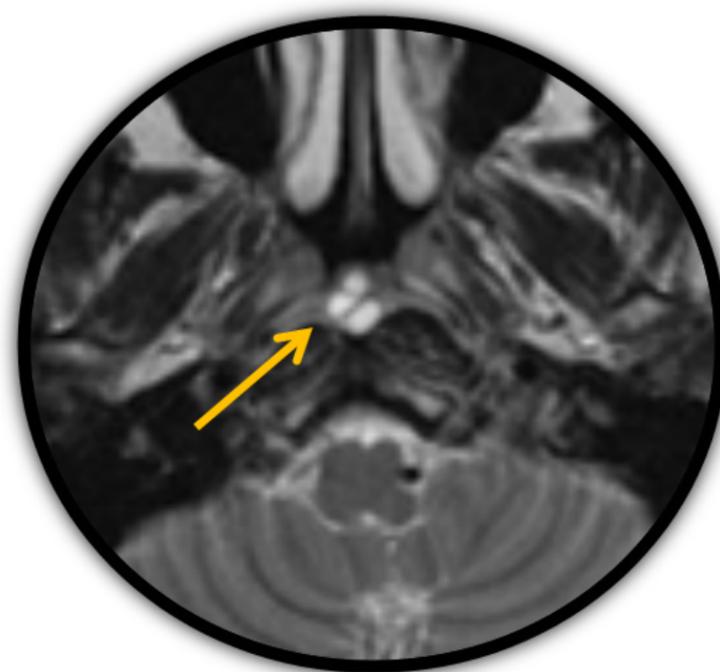


Fig. 2: Close up of high signal lesions at roof of the nasopharynx (arrowed).



On further questioning of the patient, there was no history of trauma or any ENT surgery such as adenoidectomy.

### DISCUSSION

The pharyngeal bursa (Thornwaldt bursa) represents a persistent communication between the roof of the nasopharynx and the notochord. Its formation is the result of a potential space developing in the nasopharynx at the point where the notochord retains its union with the pharyngeal ectoderm. In a large proportion of cases, adenoidectomy has been implicated as a possible etiologic factor,

and this theory presumes injury to the pharyngeal duct orifice, with resulting inflammation progressing to infection and subsequent cyst development.

Thornwaldt cysts are often detected as an incidental findings on cross-sectional imaging and on autopsy studies. Peak age at onset is in the second or third decades, with no particular sex predilection.

Clinical symptoms associated with Thornwaldt's cysts may include post-nasal drip, halitosis, headaches, neck pain and symptoms resulting from eustachian tube dysfunction like ear-ache/ear discomfort.

Differential diagnoses of cystic lesions in the pharynx include branchial cleft cyst, Rathke cleft cyst and adenoidal retention cyst.

It is important to exclude a possibility of encephalocele, meningoceles and meningo-myelocele.

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