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A Nasopalatine Duct Cyst, a Result of Epithelial Remnants of Embryonic Ducts due to a "Mistake" of Developmental Anatomy

Eleni Panagouli[1], Gregory Tsoucalas[2]* and Vasilios Thomaidis[2]

[1]*Anatomy Department, Medical School, National and Kapodistrian University of Athens, Athens, Greece*

[2]*Anatomy Department, Medical School, Democritus University of Thrace, Alexandroupolis, Greece*

***Corresponding Author**: Gregory Tsoucalas, Anatomy Department, Medical School, Democritus University of Thrace, Alexandroupolis, Greece

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A 25 year old male patient presented to the outpatient department complaining about a painless swelling over the palate and anterior maxilla gradually increasing in size. The mass was observed 2 months ago, without any obvious displacement of the frontal teeth or other symptoms. Clinical examination revealed a well-defined nontender swelling on the midline of the anterior hard palate. An X-ray was performed which showed an oval shaped radiolucency mass with corticated margins in the midline and a diameter about 3.5 cm (Figure 1A). The top of the mass seemed to be in close contact with the upper maxillary bone. An immediate excision of the mass was performed (Figure 1B), followed by histological examination which revealed a demonstrated a cyst lined by stratified squamous, pseudo stratified and cuboidal epithelium, leading to a diagnosis of a nasopalatine duct cyst (NDC).

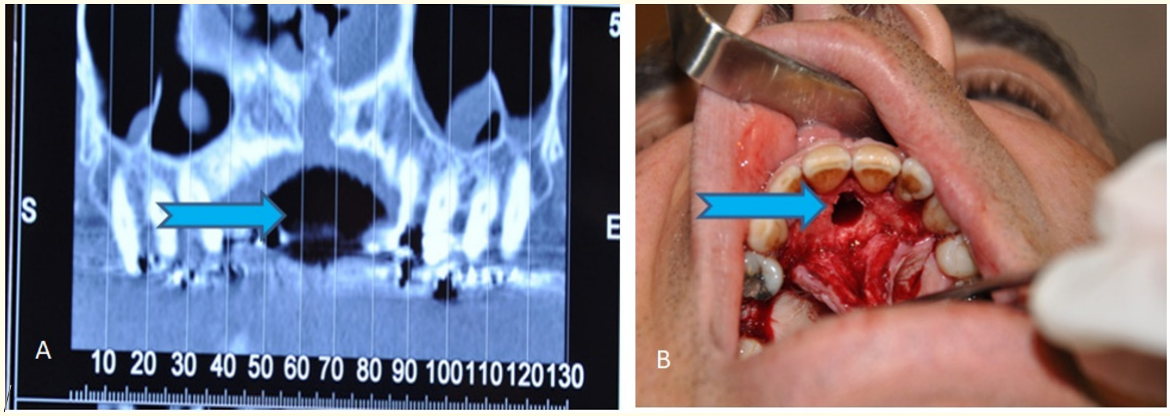

***Figure 1: A:** X-ray of the NDC which showed an oval shaped radiolucency mass with a diameter about 3.5 cm. The top of the mass seemed to be in close contact with the upper maxillary bone. **B:** excision of the mass.*

NDCs, an intraosseous developmental cyst of the midline of the anterior palate arising from epithelial remnants of embryonic ducts left behind after embryonal facial and jaw development, are the most common type of non-odontogenic cysts located on the gnathic bones, with an incidence ranging from 32.8% to 68.8% [1]. Nevertheless, they are rather rare as an entity affecting this region, comparing with other type of tumors. Barros et al in 2017 examined a wide number of lesions occurring in the oral and maxillofacial complex, with only the 0.22% of them being NDCs (30/14564 lesions). A male predominance is reported and a age group between the fourth and sixth decade [1], without excluding its development even in children [2]. Radiographically, they are typically presented as a well-defined round,

or oval radiolucencies in the anterior maxilla region [3,4] with a mean size of 2.37 ± 1.69 cm [1]. Sometimes, an NDC might appear heart-shaped appear heart-shaped due to superimposition of the nasal spine [3,4]. Vitality of teeth is not usually compromised, while most of the patients are asymptomatic, with the exception of an infection [4]. Differential diagnosis must include other types of cysts and tumors such as periapical cyst and giant cell granuloma [2-4]. NDCs are lined with a squamous, columnar and cuboidal epithelium in 71.8% of the cases [3]. The complete excision of the cyst with palatal approach is suggested, with rare recurrence.

We present a case of a large NDC (usual diameter measurements reported 1 - 2 cm) in a rather young patient, as the maximum incidence is reported between 40 and 60 years of age, with no symptoms, which could be misdiagnosed as tumor. Histological examination leads to the diagnosis of this rare entity [5].

Bibliography

1. Barros CCDS., *et al*. "Clinical and histopathological features of nasopalatine duct cyst: A 47-year retrospective study and review of current concepts". *Journal of Cranio-Maxillofacial Surgery* 46.2 (2018): 264-268.

2. Ely N., *et al*. "Nasopalatine duct cyst: a case report". *International Journal of Paediatric Dentistry* 11.2 (2001): 135-1377.

3. Dedhia P., *et al*. "Nasopalatine duct cyst". *Case Reports in Dentistry* (2013): 869516.

4. Brenda L., *et al*. "Nasopalatine Duct Cyst". *Head and Neck Pathology* 4.2 (2010): 121-122.

5. Cecchetti F., *et al*. "Prevalence, distribution, and differential diagnosis of nasopalatine duct cysts". *Oral Implantology* 5.2-3 (2012): 47-53.

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