An uncommon Localization of a Pleomorphic Adenoma in the Nasopharynx

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Introduction
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- Salivary glands tumors can be classified into major and minor according to their site of origin.

- The first group includes tumors arising from the parotid, sublingual, and submandibular glands, while the second group includes neoplasms arising from the numerous minor salivary glands placed in the submucosa, along the upper aerodigestive tract.
Pleomorphic adenoma, also known as “mixed tumor,” is a benign tumor affecting the parotid glands in 80% of cases. It represents 40–45% of all the parotid glands tumors;

Localization in the nasopharynx is uncommon as shown by the large case series reported in the literature;

Here we present a case of pleomorphic adenoma unusually arising in the nasopharynx followed by a literature review in order to identify the major characteristics of such a rare disease.
Case Presentation
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- A 57-year-old male without medical history was referred to our department presenting with unilateral otalgia, tinnitus, ear fullness, and hearing loss over the last three months. No other symptoms were reported.

- On physical examination:
  - Oto-endoscopic view: left middle ear effusion;
  - Neck exam: no lymph nodes were palpated;
  - No other physical finding were otherwise noticed;

- PTA (pure tone audiometry) + acoustic imittance: left conductive hearing loss with a type B tympanogram;
Case Presentation

- This patient underwent a nasal endoscopy which revealed the presence of a pink-coloured nodular mass extending from the roof of the nasopharynx to the upper surface of the soft palate obstructing the ostium of the left eustachian tube.
Case Presentation

- Computed tomography (CT) scan:
  - Homogenous, well-circumscribed tissue-like (40UH) mass originating from the roof and the left wall of the nasopharynx;
  - Size of the tumor: 15X14X35 mm
  - No invasion of the skull-base and the infratemporal fossa;
  - No lymph nodes;
Case Presentation

- **MRI:**
  - Iso-intense (T1), hyperintense (T2) image localized in the left lateral and upper walls of the nasopharynx with peripheral mucosal and sub-mucosal enhancement after Gadolinium injection;
Case Presentation

- the intra-oral biopsy was done and was found to be suggestive of a pleomorphic adenoma.

- An en-bloc excision of the tumor was done through a transpalatine approach under general anesthesia.

- Histological examination of the excised tumor confirmed a pleomorphic adenoma with no evidence of malignancy.

- Clear surgical margins were obtained and no further surgical treatment was required.
Case Presentation

- After 3 months of followup, our patient is asymptomatic and shows no endoscopic evidence of local recurrences;
Discussion
Discussion

- Pleomorphic adenoma represents the most common benign tumor of the parotid glands;

- Its pathogenesis is not clear yet and the only risk factor clearly associated with the disease is represented by ionized radiation;

- The tumor shows an overall female preponderance;

- It affects the middle decades of life;
Discussion

- its propensity to malignant transformation has been reported to vary between 2 and 23%;

- After a literature review, we found few cases of pleomorphic adenoma of the nasopharynx;

- The symptoms of this particular localization are frequently aspecific and potentially misinterpreting (progressive nasal obstruction, epistaxis and blood-stained discharge)
Carcinoma ex pleomorphic adenoma is a rare tumor developing from the epithelial component of the pleomorphic adenoma. The malignant transformation in this tumor has been linked to recurrence and multiple excisions;
Nasopharyngeal tumors are predominantly represented by carcinomas. However, other benign tumors like pleomorphic adenoma of the minor salivary glands originating from the nasopharyngeal walls have been reported through literature, and they can be totally cured with surgical excision.

Endoscopic surgery is an effective method to obtain the complete resection of this type of tumors thus achieving surgical clear margins of resection with a low risk of injuries to the eustachian tube.

In our case, we successfully performed an en-bloc transoral excision reaching the same results.