

Oncocytic Type Schneiderian Papilloma in the Nasopharynx

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Schneiderian papillomas arising from the surface epithelium surrounding the nasal cavity and paranasal sinuses are benign and rare tumors. Histomorphologically, divided into three groups; are called inverted, fungiform, and oncocytic Schneiderian papilloma. Oncocytic Schneiderian papillomas are the rarest form in this classification.

Keywords: Schneiderian Papillomas; Etiology; Cavity**Introduction****Case Report**

Schneiderian papillomas (SP) are the benign neoplastic proliferation of unknown etiology that is rare in the nose and paranasal sinuses. There are three different histological subtypes: inverted, fungiform, and oncotoc type [1]. Each of these subtypes has a unique microscopic appearance [2]. The inverted and oncocytic types originate from the lateral nasal wall, while the fungiform type is typically located in the nasal septum [3]. These lesions are benign but should be evaluated carefully as they have the potential to develop into malignancy about 6-17% [3]. They are locally aggressive and develop malignant transformation. They are usually originate from the lateral nasal Wall [4,5]. A 67-years-old male patient admitted to our clinic with a complaint of nasal obstruction for about 2 years. On examination, the patient naturally had bilateral nasal cavities. A yellowish colored polypoid tissue with irregular surface was detected in the nasopharynx. Punch biopsy taken from the polypoid tissue was reported as antrochoanal polyp. Bilateral nasal cavity and sinuses were normal and no signs of expansion or destruction were detected in paranasal sinus computer tomography (CT) (Figure 1). A localized lesion in the nasopharynx without any extension was detected in magnetic resonance imaging (MRI) (Figure 2). The lesion was observed as localized only in the nasopharynx

during the operation (Figure 3). The lesion was removed with an endoscopic approach. The tumoral mass was completely removed. Completely removed after the operation, the lesion was reported as oncocytic schneiderian papilloma (Figure 4). After removal of the lesion, the remaining focal point was excised and cauterized (Figure 5). Malignant transformation is seen in inverted papilloma and oncocytic type but not seen in fungiform type. The inverted papilloma and the oncocytic type originate from the lateral nasal wall, while the fungiform type originates from the septum. Schneiderian papillomas occur equally in men and women, and most often over the age of 50 [6-8].

Figure 1: Paranasal sinus CT.

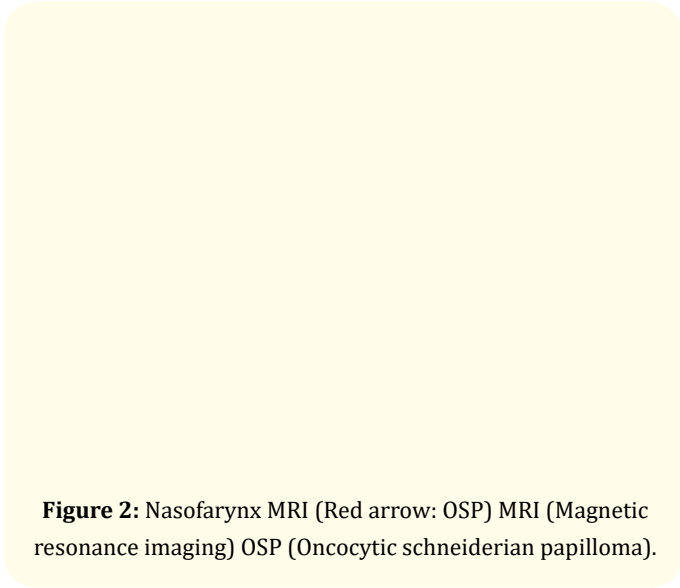


Figure 2: Nasofarynx MRI (Red arrow: OSP) MRI (Magnetic resonance imaging) OSP (Oncocytic schneiderian papilloma).

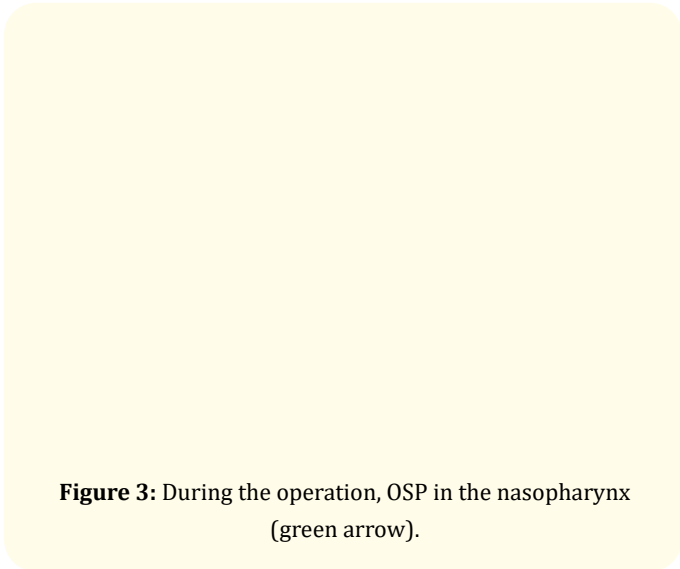


Figure 3: During the operation, OSP in the nasopharynx (green arrow).

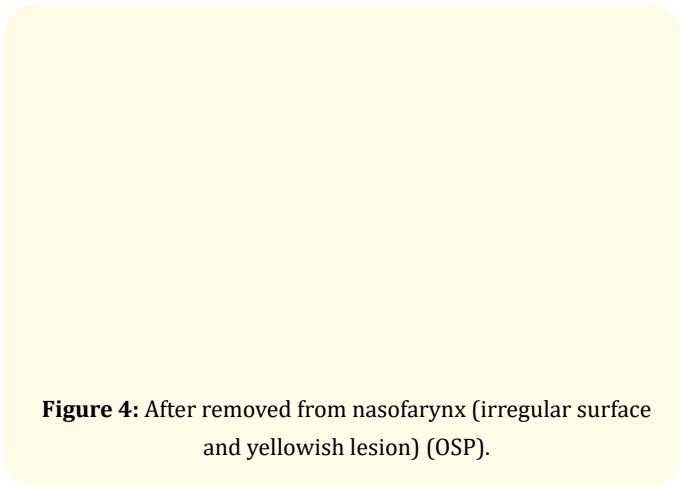


Figure 4: After removed from nasofarynx (irregular surface and yellowish lesion) (OSP).

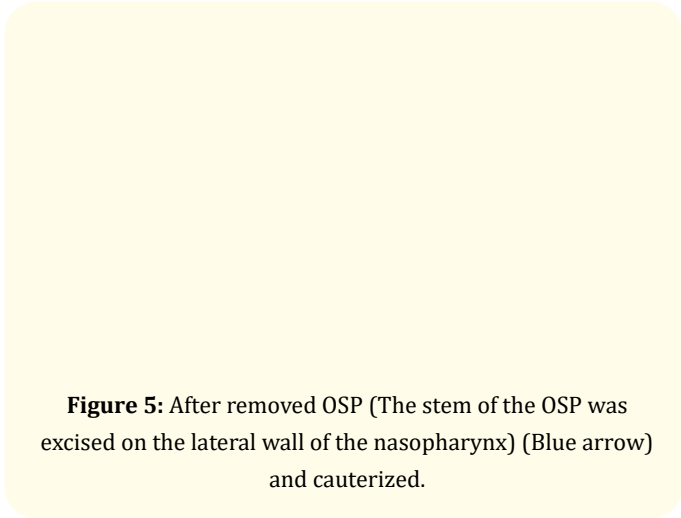


Figure 5: After removed OSP (The stem of the OSP was excised on the lateral wall of the nasopharynx) (Blue arrow) and cauterized.

Our patient was a 67-year-old male patient who had a nasopharyngeal lesion originating from the lateral Wall. The lesion was reported as oncocytic type predominantly inverted surface pattern of the tumor (Figure 6). With low-power view, irregular endophytic glandular structures consisting of columnar cells with abundant eosinophilic cytoplasm were seen (Figure 7). Medium-power view showing the neutrophilic microabscesses with arranged cells and there is no obvious cell atypia and visible nucleolus (Figure 8). No malignant transformation was observed in the excision material, which was completely sampled.

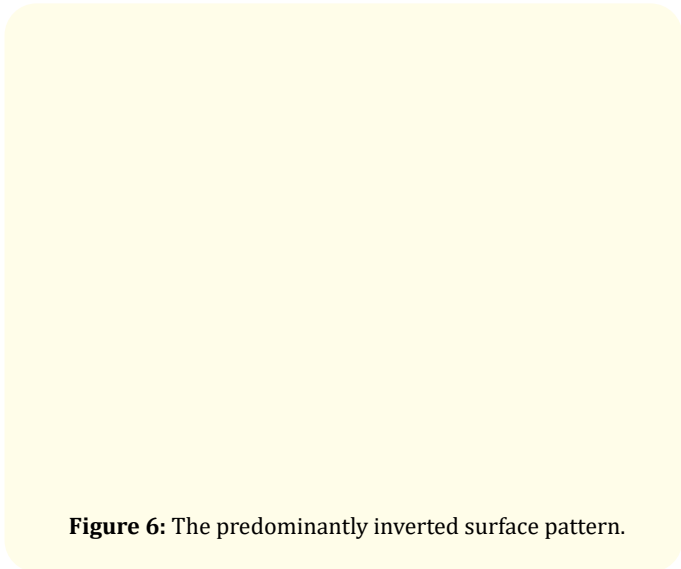


Figure 6: The predominantly inverted surface pattern.

Figure 7: With low-power view, irregular endophytic glandular structures consisting of columnar cells with abundant eosinophilic cytoplasm were seen.

Figure 8: Medium-power view showing the neutrophilic microabscesses with arranged cells and there is no obvious cell atypia and visible nucleolus.

Discussion and Conclusion

The nasal placodes develop as early as the third week of gestation. They subsequently invaginate centrally to become the nasal pits by the fifth week. The ectodermal epithelium that covers them during growth forms the Schneiderian membrane. The fundus of these pits finally meets the rostral end of the developing endoderm lined pharynx. The buconasal membrane, consisting of ectoderm and endoderm, separates the two compartments. This structure eventually demolish and allowing for communication between the two cavities. Through 10 weeks, the growth of the

lateral palatal shelves separates the nasal and oral compartments, and the developing septum divides the nasal cavity into right and left halves. The choanae symbolize the boundary area between ectodermal and endodermal-derived epithelia. This process sometimes results in the migration or combining of the Schneiderian membrane into areas where it is not normally found. Latter inflammation of this tissue-either by environmental, viral, or other agents- can result in the development of a papilloma [9]. In a previous report of nasopharyngeal schneiderian papilloma, Astor et al described patients who had similar lesions in the nasal cavity [10]. Our patient had a solitary nasopharyngeal schneiderian papilloma that did not involve the nasal cavity. The etiology of Oncocytic Schneiderian papilloma (OSP) is not known exactly. The main complaints of the patients are usually unilateral nasal congestion, epistaxis, pain and rarely diplopia. The onset of symptoms can be months or years ago. On physical examination, pink or red, irregular surface, polypoid mass, which can often be confused with an inflammatory polyp, is seen [11]. In our case, a 67-year-old male patient had been admitted many times for about 2 years with complaints of nasal congestion and pain around the eyes, and the patient's complaint did not regress with the medical treatments, and a localized, irregular surface yellowish lesion in the nasopharynx was detected. Punch biopsy was taken from the lesion and it was reported as antrochoanal polyp. However, bilateral nasal cavity was observed naturally in physical examination. Radiologically, different findings can be seen depending on the extent of the disease. Generally, CT and MRI imaging have the appearance of a soft tissue mass originating from the lateral nasal wall of the maxillary sinus. Compression, invasion and bone destruction towards the surrounding tissues can be seen. Detection of bone destruction is more suggestive of malignancy [12]. In our case, paranasal sinuses and nasal cavity were observed naturally in paranasal CT and MRI. The lesion was localized in the nasopharynx and there was no expansion or erosion in the surrounding tissues. Microscopically, the most important feature of OSP is that it has an exophytic and endophytic growth pattern and is surrounded by stratified eosinophilic epithelium [13]. Our case was reported histomorphologically compatible with OSP. The clinical behavior of OSPs is very similar to inverted papillomas. Recurrence rates vary between 25-35%. The major cause of recurrence is inadequate surgical excision. There is a 14-19% risk of developing malignancy from OSPs [14]. The main treatment is total surgical excision and radiotherapy can be used after surgery when necessary [14].

Transnasal endoscopic surgery can be applied in limited sinonasal papillomas [15]. In our case, the lesion was totally excised using the endoscopic method. Because these tumors have a high risk of recurrence and malignancy, they require close follow-up after complete surgical excision. No recurrence was found in the follow-up of our case.

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