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**Case Report** **ENT**

# Rare and Unusual Cause of Adults Epistaxis

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## Abstract

Mature teratomas, or teratoid tumors, or benign teratomas, of the nasal cavity and sinuses are exceptional the diagnosis is histopathological and shows within the lesion different types of tissue: fat, glial, muscular, cartilaginous, bone and respiratory. Teratomas are rare congenital neoplasms that originate from pluripotent cells. In this article, we report the first case of a nasal teratoma. We also discuss methods for diagnosing and treating upper respiratory teratomas, and include a brief literature review.

**Keywords:** Teratomas, Facial deformity, nasal obstruction, epistaxis.



## INTRODUCTION

The diversity of structures constituting the nasal cavities (bone, mucosa, cartilage, vessels and nerves, melanin cells) accounts for the large histopathological polymorphism of these tumors.

Mature teratomas, or teratoid tumors, or benign teratomas, of the nasal cavity and sinuses are exceptional. They occur mainly in newborns and may be associated with other malformations. Facial deformity and nasal obstruction are the most common clinical manifestations. The diagnosis is histopathological and shows within the lesion different types of tissue: fat, glial, muscular, cartilaginous, bone and respiratory. Teratomas are rare congenital neoplasms that originate from pluripotent cells.

According to most studies, teratomas in the head and neck account for only 2-9% of all cases. In this article, we report the first case of a nasal teratoma. We also discuss methods for diagnosing and treating upper respiratory teratomas, and include a brief literature review.

## CLINICAL OBSERVATION

The clinical case that we report in this work is that of a young patient without a particular history who presented two years before his consultation a unilateral right nasal obstruction of progressive aggravation without epistaxis or smell disorders no visual disturbance no signs of general alteration;

The patient faced with the discomfort caused by nasal obstruction the patient consulted.

The clinical examination of the patient at anterior rhinoscopy did not visuliate process but the nasal flow was decreased on the right side compared to the left side; Nasal endoscopy after local anesthesia with xylocaine napahzolinea found a process of regular contours that appeared pedunculated to the medium turbless and occupied the entire nasal cavity preventing the progression of the endoscope to the cacum; the cervicofacial examination was without peculiarities no facial deformity ;p as of ophthalmological signs or neurological signs.

On the paraclinical level we performed an injected nasal CT which objectified a hypo dense formation with erosion of the middle horn and filling of anterior ethmoid cells a mass effect on the nasal septum reaching the cavum obstructing the right choana after injection a contrast taking was heterogeneous (Image 1, 2 & 3).

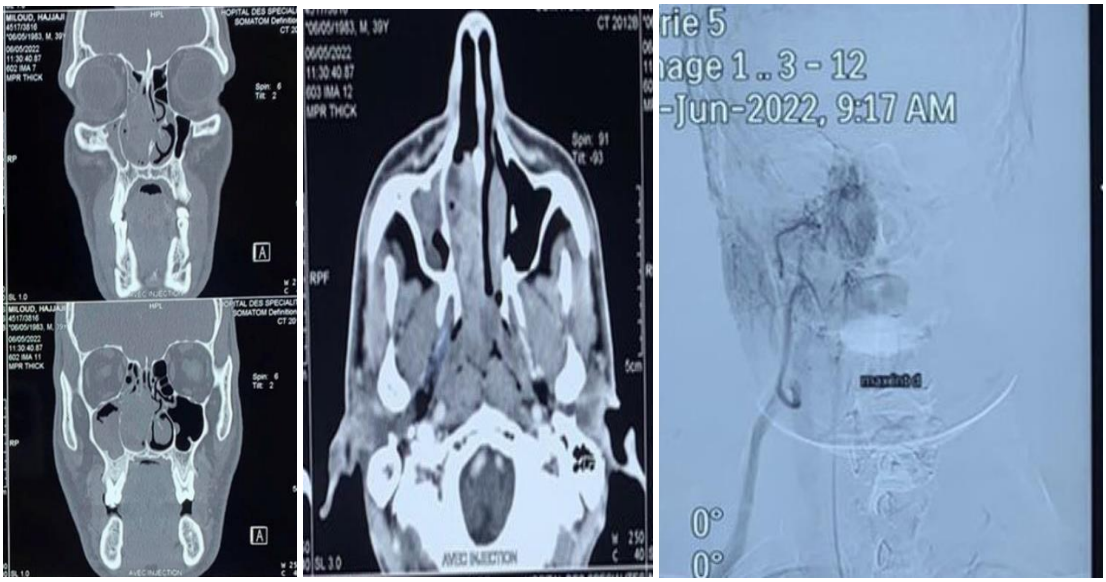

**Image 1, 2 & 3: An injected nasal CT scan that objectified a hypodense formation with erosion of the middle horn and filling of anterior ethmoid cells a mass effect on the nasal septum reaching to the cavum obstructing the right choana after injection a contrast taking was heterogeneous**

After clinical investigations the patient underwent surgical excision under general anesthesia; surgical removal of the tumor by nasal endoscopy and for the fragment that was at the level of the cavum endobuccal as well as the realization of a right meatotomy; Histopathological examination confirmed the diagnosis of mature teratoma.

## DISCUSSION

Teratomas are complex tumors composed of elements of various embryonic origins (ectoblastic, endoblastic, neuroblastic or mesenchymal) and more or less differentiated.

They result from the proliferation of totipotent cells, capable of giving rise to different types of tissues, foreign to the region in which they develop, and organized in an anarchic way. Their appearance varies according to the size and degree of heterogeneity and maturation of the tissues that compose them [1].

They are more frequently located in the sacrococcygeal region, with rare locations in the head and neck. Nasopharyngeal localization is even rarer [1, 2]. Their cause remains controversial, several theories having been developed. One possibility would be the development from a site of embryonic tissue that has escaped the regional influence of the primary organizer.

To make the diagnosis of teratoma, it is mandatory to find at least two of the three germ layers [4]. Ectodermal tissue is usually predominant and is composed of neural tissue, skin, hair and teeth. Mesodermal tissues such as fat, cartilage or bone and endodermal tissue are less common. The endodermal layer is characterized by respiratory or intestinal epithelia.

Immature teratomas (IT) are usually derived from a malignant transformation of mature teratomas [5]. The amount of immature neuroectodermal tissue present classifies immature teratomas into three degrees of increasing malignancy [5].

In general, teratomas are more common in females than in males. However, it has been established that there is no sexual predilection in the teratomas of the head and neck [6]. Most cases occur in newborns and older infants, unlike our patient who was male and in an adult age group.

Generally, while pediatric teratomas of the head and neck tend to be oncologically benign, adult teratomas tend to be histologically and oncologically malignant, unlike our case which had a mature teratoma despite being an adult patient [7, 8].

Common manifestations of sinus-nasal teratomas include facial deformity, nasal obstruction and nasal mass [8]. In our patient, the main manifestation was a right unilateral nasal obstruction with epistaxis of low unilateral abundance.

Tetraod tumors of the nasopharynx include a rare group of neoplasms. In the upper respiratory tract, they occur as a dermoid cyst, usually in the nasal area, but in the nasopharynx and oropharynx they have been called "hairy polyps" because they are covered with hairy skin and are solid polypoidal lesions unlike the dermoid cyst. In 1918, Brown-Kelly was credited with the first report of "hairy polyp" [9].

The following should be taken into account in the differential diagnosis of sinonasal teratomas:

immature teratomas, teratomas with malignant transformation, sinonasal yolk sac tumors, sinonasal teratocarcinosarcomas, dermoid cysts, hamartomas and hairy polyps.

Immature teratomas are iNFANCY and early childhood tumors unlike our case which occurred in an adult patient, while Sinonasale yolk sac tumors and sinonasal teratocarcinosarcomas have only been documented in adults [11, 10, 9].

Teratomas can be histologically mature and oncologically benign. Teratomas may also be histologically immature while oncologically benign, or they may harbor malignant components and have the potential to exhibit aggressive biological behavior. A mature teratoma is usually benign and is more frequently found in females, but immature teratomas are usually malignant and are more commonly found in males [12]. Histologically, these contain immature elements, such as immature neuroepithelium or immature mesenchymal tissue [6].

There are three main histological types of teratomas that include mature (benign), immature (malignant) and monodermal (highly specialized) teratomas [13]. Mature teratomas contain well-differentiated cells, while immature teratomas contain primitive structures that are not sufficiently differentiated. Teratomas that contain a malignant component are classified as malignant teratomas [14]. Immature teratomas tend to be either solid-nodular or cystic solid, while mature teratomas are usually cystic [15].

Cystic teratomas are mostly benign, containing sebaceous matter and mature tissue types. On the other hand, solid teratomas are usually malignant and composed of immature embryonic tissue in addition to adipose, cartilaginous, fibrosis and bone components [16]. Preoperative computed tomography and MRI are imperative to exclude intracranial extension of tumors [15, 17].

These imaging techniques help demonstrate the relationship between the lesion and surrounding vascular, bone and visceral structures. MRI was not performed in our case because clinically we had made a diagnosis of a nasal polyp that turned out to be an immature teratoma.

The recommended management for teratomas of the head and neck is surgical excision. This is curative and recurrence is rare [18]. Transoral endoscopic removal of lesions located in the nasopharynx has been described, and this approach allows direct visualization of the mass at its base.

Sinonasal teratomas are associated with high mortality rates, despite the use of different modalities in treatment. Conservative treatment of immature teratomas is possible and does not appear to influence recurrence and survival rates. Patients with more advanced disease should be treated with adjuvant chemotherapy containing bleomycin, etoposide and cisplatin in addition to surgery [19].

## CONCLUSION

We conclude that sinuso-nasal teratomas are very rare, but they must be taken into account in the differential diagnosis of nasal polyps because the presentation can be remarkably similar in both. It is a diagnosis not to be forgotten despite its rarity.

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