



A RARE CASE REPORT OF NASAL LEIOMYOMA

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ABSTRACT

Most of the sinonasal tumours are of epithelial origin. Leiomyomas are very uncommon in the upper respiratory tract and extremely rare in the nasal cavity and paranasal sinuses. They account for less than 2.5% of the mesenchymal neoplasms of the sinonasal tract and the nasopharynx. Here we present a case report of a patient with nasal obstruction and epistaxis for 3 months. The patient underwent polypectomy and was diagnosed to have a nasal leiomyoma.

KEYWORDS

INTRODUCTION:

Leiomyomas are benign tumours which arise from the smooth muscle. They are frequently present in the uterus and alimentary tract but are very rare in the head and neck region. They are benign tumours which usually present as a painless mass.

CASE HISTORY:

A 67 year old female came with complaints of epistaxis, 5-6 episodes for two days which started and stopped spontaneously. History of nasal obstruction on the left side for the past three months. No h/o trauma or bleeding disorders. No h/o nose picking. No h/o headache or heaviness of head. No complaints of recurrent sneezing. The patient is a known diabetic, hypertensive. She also has hypothyroidism and dyslipidemia for which she is being managed medically.

On examination the external contour of the nose is normal. On anterior rhinoscopy, there was a pale greyish glistening mass almost filling the left nasal cavity. The right nasal cavity was normal. On posterior rhinoscopy, there was no mass seen in the nasopharynx.

Diagnostic nasal endoscopy (DNE) was done and revealed a pale greyish glistening mass measuring approximately 1x3 cm filling the left nasal cavity. On probe test, the mass did not bleed on touch and appeared to arise from the septum.

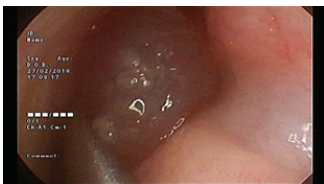


Fig. 1 pale greyish glistening mass in the left nasal cavity.

A computed tomography (CT) scan of the nose and paranasal sinuses was done and showed an ill-defined, non-calcified soft tissue density lesion in the left nasal cavity with thinning of the nearby nasal septum and no local invasion - inflammatory? neoplastic. No mass in bilateral pterygopalatine fossae. Small polypoidal mucosal opacification in the right anterior ethmoidal sinus-inflammatory. Bilateral osteomeatal units appeared patent, hypertrophied inferior nasal turbinates and no bone destruction.

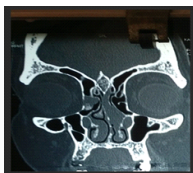


Fig. 2 ill-defined, non calcified soft tissue density lesion in the left nasal cavity.

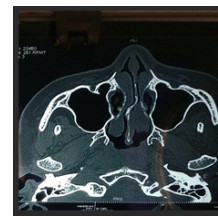


Fig. 3 bilateral maxillary sinus free, no bony erosion

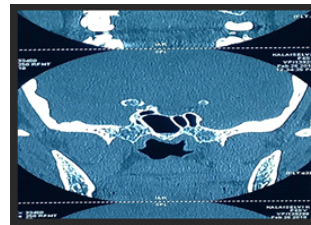


Fig. 4. Nasopharynx free.

Endoscopic polypectomy with FESS was done and the mass was sent for histopathology.



Fig 5 preoperative image

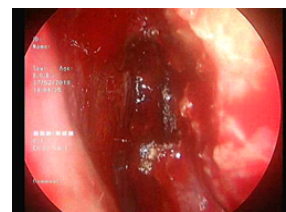


fig 6. Immediate post operative image

Histopathology report revealed a solitary fibrous tumour. There was a pseudostratified squamous epithelium lining with underlying neoplasm disposed in sheets, fascicles. Intervening areas of hyalinization was seen. There was no atypia.

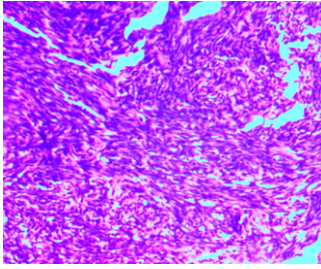


Fig 7. Solitary fibrous tumour

Immunohistochemistry showed PAN-CK negative and CD-34, CD-99 positivity, Ki-67 showed 10% focal positivity, S-100 focal positivity, SMA positive and Desmin positive confirming a leiomyoma.

Post operative DNE after 2 months showed a clear nasal cavity with no recurrence till date.

DISCUSSION:

Leiomyomas are benign tumours which arise from the smooth muscle. They are frequently present in the uterus and alimentary tract but are very rare in the head and neck region. They are benign tumours which usually present as a painless mass. Maesaka et.al. reported the first case of an intranasal leiomyoma in the year 1966. The origin of a smooth muscle tumor in the nose maybe explained as follows:

1. Can arise from undifferentiated mesenchyme
2. Can arise from the smooth muscles which are present in the walls of blood vessels
3. Can arise from the nasal vestibule.

Leiomyomas can be classified into:

1. Vascular type- less common, has double walled vessels.
2. Nonvascular type

Leiomyomas in the nasal cavity are mostly of the vascular type and hence a digital subtraction angiography may be done preoperatively. Trauma, steroid therapy and hormonal imbalance may cause a vascular leiomyomas.

WHO has classified leiomyomas into three types based on histology as follows:

1. Leiomyoma
2. Angiomyoma(vascular leiomyoma)
3. Epitheloid leiomyoma

Morimoto classified leiomyomas into:

1. Solid or capillary- composed of smooth muscle bundles which surround vascular channels
2. Cavernous- composed of dilated vascular channels with lesser smooth muscles
3. Venous- vascular channels of venous type with thick muscular walls and smooth muscle bundles are not compact.

According the histopathological report in our study, it shows that the tumour was of solid type and benign in nature due to less mitotic index. The differential diagnosis which maybe considered for these lesions are nasal polyposis, hemangioma, nasal angiofibroma, fibromyoma, leiomyoblastoma,angiosarcoma, vascular leiomyosarcoma.

The review of literature shows a middle aged, female preponderance. They are slow growing tumours which usually present with nasal obstruction and epistaxis. The patients may also present with headache or acute sinusitis. Local pressure can cause bony erosion and local extension of the tumour. Even though radiologically there is no characteristic finding for a leiomyoma but they can be used to know the extent of the tumour and plan treatment accordingly. The most satisfactory treatment for these lesions is complete excision of the tumour followed by immunohistochemistry studies.

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