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Case Series

Four unusual sinonasal and sinorbital lesions: a case series

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ABSTRACT

Presentations of Sino nasal lesions may be indistinguishable and therefore represent diagnostic and therapeutic dilemma due similarities of non-neoplastic and neoplastic lesions at initial presentation may lead to a significant delay in the diagnosis. This case series has been reported to through light on four different case scenarios that presented to us, their diagnosis and management. This was a case series of four unusual cases of the sinonasal and sinoorbital region that presented with symptoms of nasal obstruction, rhinnorhea, epistaxis, radiological and diagnostic nasal endoscopy was performed. Using functional endoscopic sinus surgery and lynch Howarth method the lesions were excised. As sino nasal and sinoorbital lesions present with similar clinical features accurate diagnostic procedures such as nasal endoscopy and radiological investigations, histopathological investigations play an important role in the management of the lesions.

Keywords: Unusual sino nasal, Sino orbital lesions

INTRODUCTION

Sino Nasal and Sino orbital lesions represent less than 3% of head and neck lesions. Tumors and lesions in this region usually cause non specific and common symptoms, including inflammatory diseases. Nasal obstruction, epistaxis, facial pain and local infection are the most common symptoms of patients with nasal masses.[1] This case series has been conducted to report rare Sino nasal and Sino Orbital lesions, their clinical presentations, radiological presentations, and their management.

CASE SERIES

Case 1

Angiomatous epithelial polyp of low grade malignancy: A 35 year old female presented with progressive nasal obstruction of the left nasal cavity since a month, epistaxis and hypo nasality. Anterior rhinoscopy showed a reddish fleshy mass arising from the maxillary ostium and lateral wall of the nasal cavity, which bleeds on touch and tender, free from the septum and the floor. Nasal cavity and paranasal sinuses Computed tomography (CT) scan showed mildly heterogeneously enhancing polypoidal mass arising from the lateral nasal cavity and maxillary ostium, abutting the middle and the superior turbinate.

Nasal endoscopy revealed reddish polypoidal mass present in the middle meatus, arising from the lateral wall of the nasal cavity. The patient underwent functional endoscopic sinus surgery and excision of the nasal mass. Gross and histopathology revealed angiomatous epithelial polyp of low grade malignant potential.

Case 2

A rare case of sphenochoanal polyp: A 20 year old male patient presented with unilateral nasal obstruction,

hyponasality, anterior rhinoscopy and nasal endoscopy showed pale polypoidal mass arising from the sphenoethmoidal recess, Posterior rhinoscopy showed pale polypoidal mass in the posterior choana. CT showed polypoidal mass in the sphenoethmoidal recess traversing the posterior choana. Functional endoscopic sinus surgery was done. Patient was relieved of his symptoms.

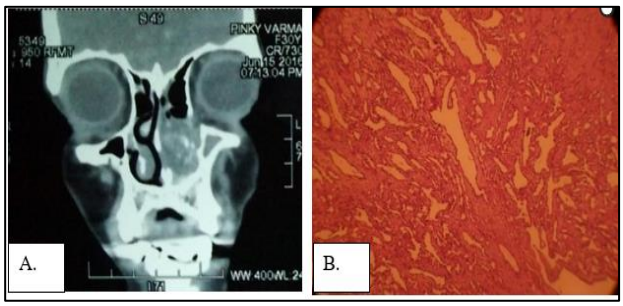

Figure 1: Ct PNS showing mildly heterogeneously enhancing polypoidal mass arising from the lateral nasal cavity and maxillary ostium, abutting the middle and the superior turbinate.

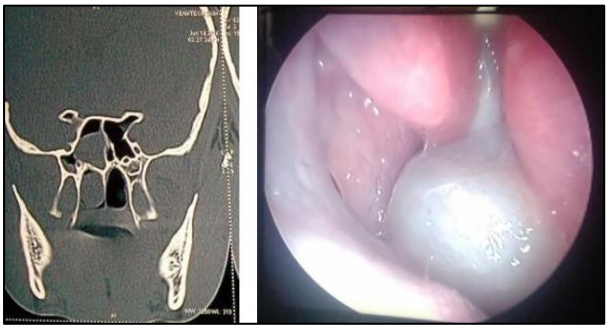

Figure 2: CT PNS and DNE shows polypoidal mass in the sphenoethmoidal recess traversing the posterior choana.

Case 3

An unusual case of orbital dermoid

A young male patient presented with chief complaints of progressively increasing swelling over the medial aspect of the left eye and epihora. Examination revealed a 2×2 cm soft cystic swelling over the medial canthus, non tender. CT scan showed a 2×2×2 cm hyperdense lesion noted over the medial aspect of the left eye causing scalloping of the medial wall of the orbit. Diagnostic nasal endoscopy revealed no intranasal extension. Using lynch howarth procedure the nasal mass was excised, no breech of lamina papyracea was seen.

Histopathology of the specimen revealed orbital dermoid.

A 30 year old male presented with history of trauma to the right upper eye lid near medial canthus due to fall from height over a wooden plank 1 month back. After 10 days the patient developed discharge, pain and swelling at the site of injury. There were no nasal or visual complaints. On examination a 1cm scar was seen at the medial end of the right upper eyelid having a small sinus opening within scar with purulent discharge, surrounding erythema and edema. In view of above history and findings nasal endoscopy was done, the right middle meatus showed presence of purulent discharge. Also, a blackish brown color foreign body was visualized traversing through the right lamina papyracea, middle meatus, nasopharynx, and then touching the anterior surface of the posterior pharyngeal wall. In view of large size and friable nature of wooden stick external lynch-Howarth approach was planned for surgical removal of the foreign body under general anesthesia with endotracheal intubation. Lynch Howarth incision was given midway between the right medial canthus and the nasal bridge with concavity towards the medial canthus. Local dissection was done and then with gentle screwing movement a long wooden stick piece (9×0.8×0.8 cm) was removed in Toto. Post operative period was uneventful.

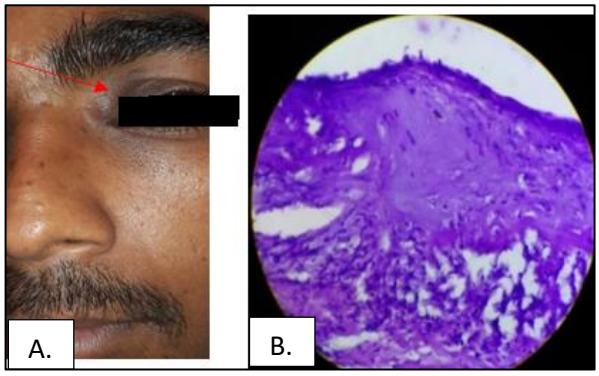

Figure 3: (A) Examination of the patient revealed a smooth swelling over the medial canthus of left eye. (B) Histopathology revealed an orbital dermoid.

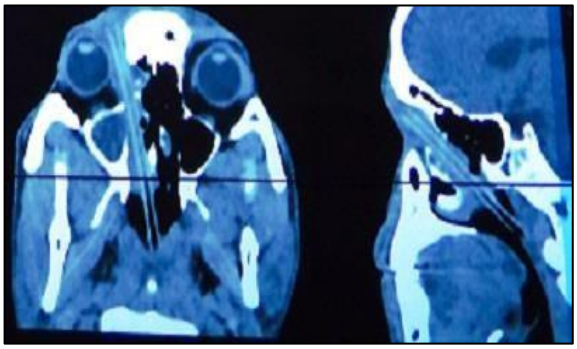

Figure 4: CT scan PNS and orbit showing hyper attenuating tubular structure in medial aspect of right orbit through right lamina papyracea, ethmoid, nasopharynx upto posterior pharyngeal wall.

DISCUSSION

Sino nasal angiomatous polyp is a rare variant of Sino nasal polyp that mimics inverted papilloma, juvenile

angiofibroma, and malignant tumor. It is also known as angiectatic polyp as it is characterized by extensive vascular proliferation and with regions that are susceptible to vascular compromise, resulting in venous stasis, thrombosis, and infarction. According to a study conducted by yuan et al the most common symptoms are nasal obstruction, rhinorrhea, epistaxis.[2] The typical features on CT scan are expansive mass in the sinus with bony wall destruction and remodeling.[3] Gross was soft elastic golden brown tan colored mass, microscopically showed pseudostratified squamous epithelium. Trans nasal endoscopic excision is the treatment of choice.[4]

Sphenochoanal polyp

A sphenochoanal polyp is a solitary mass that arises from the sphenoid sinus. It exists through the sphenoid ostium passes across the sphenoethmoidal recess and reaches into the choana.[5] We can differentiate a sphenochoanal polyp from antrochoanal polyp by CT scan or by endoscopic examination. Spenochoanal polyp lies medial to the middle turbinate arising from the sphenoethmoidal recess, whereas antrochoanal polyp lies lateral to the middle turbinate.[6] Most authors recommend total removal under endoscopic guidance, as simple polypectomy alone carries a higher risk of recurrence. Correction of deviated nasal septum and partial resection of the anteroinferior part of the superior turbinate provides sufficient exposure of the sphenoid sinus. After widening the sphenoid sinus ostium, any cystic component of the polyp attached to the sinus wall must be totally removed to prevent recurrence. A microdebrider can achieve this objective and preserve adjacent normal mucosa.[7]

Orbital dermoid

Orbital dermoid is a choristoma (histologically normal tissue at abnormal location). It is derived from displacement of ectoderm to a subcutaneous location along embryonic lines of closure. Forty percent of orbital dermoids are diagnosed between 15 and 40 years of age.[8] Orbital dermoid cysts located superficially in and around the orbit present as subcutaneous or subconjunctival discrete well-circumscribed swellings. Imaging modalities reveal a homogenous well circumscribed lesion.[9] Treatment of dermoid cyst is surgical en bloc excision, which is indicated for cosmetic purposes, confirmation of diagnosis, to relieve the symptoms created by mass in periorbital region and to prevent complications in cases of intracranial extension. Complete surgical excision with intact capsule is done to prevent dissemination of the contents which otherwise can incite an acute inflammatory response.[10]

Foreign body wooden stick of the sino orbital region

Impacted foreign bodies in nose and paranasal sinuses lesser as compared to foreign bodies at the other ent sites. This is a critical area as it is close to vital structures like orbit, skull base etc.[11] Retained wooden foreign bodies in the sino-orbital region may remain quiescent for a considerable length of time without causing symptoms or signs. Presenting with delayed onset of complications such as orbital cellulitis, abscess, granuloma, chronic draining sinus and chronic unilateral mucopurulent nasal discharge.[12] In our case, patient presented with discharging sinus at right upper eyelid near medial canthus though he had retained the foreign body for one month, which could have been fatal in view of its size, nature and extent. Exceptionally it spared all vital structures, extraoccular movement were unaffected and all cranial nerve were intact. Lynch howarth procedure was used to extract the foreign body, sparing all the vital structures in the vicinity.[13]

CONCLUSION

Sino nasal lesions can present in myriad of ways and can present as a challenge to an ENT surgeon. Correlation of clinical, radiologic, and pathologic modalities is of utmost importance for accurate diagnosis. All these modalities are complementary to each other. Most importantly, a thorough histopathological evaluation, is an essential part of work up of patients with sinonasal mass, so that a correct and timely intervention can be made.

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