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An unusual histologic surprise behind choanal atresia

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ABSTRACT

A 16-year-old adolescent male presented with unilateral nasal obstruction and nasal discharge since birth. Diagnostic nasal endoscopy and radiological imaging were suggestive of choanal atresia (CA) and hence the patient was taken up for surgery with intraoperative finding of an oblique ledge of bone running from roof to floor of left nasal cavity behind which was an unexpected mass of hair follicles which was removed and sent for Histopathological Examination (HPE) and this was consistent with sebaceous gland hyperplasia (SGH). Post-operatively patient was symptom free.

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INTRODUCTION

 Sebaceous glands and hair follicles usually found on the nasal vestibule.¹

Sebaceous glands within nasal cavity suspicious of choristoma- mass of tissue histologically normal for a body but in abnormal site.²

CASE HISTORY

• A 16-year-old adolescent male presented with unilateral nasal obstruction and thick nasal secretions since birth. • He was treated over the years as a case of allergic rhinitis

with steroid nasal spray and oral antihistamines with no relief.

Nasal Endoscopy showed caudal deviation of nasal septal cartilage to right side and a fibrous band in the floor of left nasal cavity with thick tenacious secretions behind which was a bony ledge obscuring the vision of nasopharynx.

INVESTIGATION

 HRCT of nose, paranasal sinus and orbit (FIGURE 1) -Left nasal cavity compartmentalised by an oblique bony septum running from floor of sphenoid to floor of nasal cavity creating two compartments, of which the posterior compartment was smaller creating a non-functional segment of the nasal cavity. Behind the bony ledge was a homogenous soft tissue density.

TREATMENT

 The atretic plate was removed using microdrill and coblation wand, endoscopically under General Anaesthesia. Behind the atretic plate there was a mass of hair follicles which was removed and sent for histopathological examination (HPE). The procedure was completed with a posterior nasal septectomy (FIGURE 2-A) until sufficient posterior nasal aperture was created visualizing bilateral torus tubarii.



FIGURE 1- (A)) Bony ledge (yellow asterisk) running from base of sphenoid to floor of nasal cavity in HRCT nose paranasal sinus, orbit on sagittal section. (B) Homogeneous mass behind bony plate on axial cut. (C) Coronal section.



FIGURE 2- (A) After the bony ledge in the posterior choana was drilled out and tuft of hair removed bilateral torus tubadii were visualised. (B) Histopathological examination of the mass. Section shows sebaceous gland (yellow arrow) and hair foillices (black arrow). (H and E, X 100)

FOLLOW-UP

 HPE of the specimen- respiratory lining epithelium with dilated hair follicles surrounded by lobules of benign sebaceous glands (FIGURE 2-B).

2 months later, a check nasal endoscopy showed adequate opening of the posterior choana through which both the torus tubarii were visualised. The patient no longer had nasal obstruction nor nasal discharge.

DISCUSSION

 Unilateral choanal atresia (CA) is usually compatible with life and presents in adulthood as unilateral nasal obstruction with thick nasal secretions.

 Treatment of choice for CA is removing the atretic plate and completing with posterior septectomy to create a common posterior cavity so that the raw areas do not stenose again.³

Normally sebaceous glands are found in hair follicles. Ectopic sebaceous glands are seen in eyes, oral cavity, larynx, oesophagus and tongue.⁴

Antero-inferior part of the nasal cavity is covered by stratified squamous epithelium with pilosebaceous units but the supero-posterior part is lined by respiratory epithelium and sebaceous glands are usually not present.¹

 Ectopic sebaceous glands in posterior part of nasal cavity is an extremely rare diagnosis.¹

CONCLUSIONS

- Always rule out unilateral choanal atresia in chronic
- unilateral nasal obstruction with nasal discharge.
- Posterior part of the nasal cavity is an unusual site for Sebaceous gland hypertrophy.
- Although rare, sebaceous choristoma should be considered as a differential diagnosis for posterior nasal mass.

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