Nasal chondromesenchymal hamartoma mimicking an antrochoanal polyp in a young adult: A case report.

Introduction

Nasal chondromesenchymal hamartoma (NCMH) is a rare chondro-stromal tumor of the nasal cavity and paranasal sinuses which typically presents in infancy or childhood. We report on a case of a 13-year-old female patient who presented with a history of persistent left-sided nasal congestion, found to have a fleshy, non-tender polypoid mass filling the nasal cavity on anterior rhinoscopy. Subsequent computed tomography (CT) of the paranasal sinuses confirmed a large left-sided nasal mass extending posteriorly to the choana. It’s origin was not clear from imaging. The patient underwent endoscopic endonasal resection of the mass. Histopathological analysis of the surgical specimen was consistent with nasal chondromesenchymal hamartoma. To the best of our knowledge, only 6 cases of NCMH in an adolescent have been reported to date. The objective of this study is to describe the clinical presentation and management of this clinical entity in order to provide clinicians with a more comprehensive differential diagnosis for a sinonasal mass.

Case Presentation

- 13 year old female referred to Pediatric ENT office for evaluation of persistent left-sided nasal congestion found to have fleshy, polypoid mass filling left nasal cavity
- Computed tomography confirmed presence of left-sided nasal mass filling the nasal airway, extending posteriorly to the choana
- Intraoperatively the lesion was noted to extend from the left anterior naris to the choana, tracking along the medical aspect of the middle turbinate
- Histologically the tissue showed irregular strands of cartilage separated by loose myxoid matrix with spindle cells and prominent vascularity
- No recurrence noted at 6 month follow up

Discussion

- Hamartomas are benign lesions found throughout the body, and consist of excessive tissue that is native to the site of origin
- First described as a distinct clinicopathologic entity in 1998 by McDermott et al., NCMH’s represent a subset of these lesions and histopathologically resemble other mesenchymal hamartomas
- A recent systematic review by Mason et al. identified 48 unique cases of NCMH between 1975 and 2015, of which 6 were diagnosed in adolescent patients
- While originally thought to be developmental or congenital, several studies have provided evidence for an underlying genetic predisposition
- Mutations in an Rnas endoribonuclease known as DICER1 being identified as genetic basis in the majority of patients
- Vast majority of NCMH benign in nature, though locally destructive nature may confer a malignant appearance on imaging
- Advances in endoscopic sinonasal surgery have allowed for the complete surgical excision of lesions confined to the nasal cavity
- No standardized protocol established for disease surveillance, though repeat imaging studies at 6-12 month intervals has been recommended

Conclusions

- NCMH’s represent a benign sinonasal tumor that may resemble more common masses of the nasal cavity
- Though overwhelmingly benign in nature, bony destruction and local invasion may result from mass effect
- Advances in endoscopic sinus surgery allow for the complete resection of these tumors with minimal chance for recurrence

Figure 1. Office-based photograph of anterior rhinoscopy demonstrating fleshy, polypoid mass filling the left nasal cavity; Star = nasal chondromesenchymal hamartoma.

Figure 2. (a) Prominent vascularity and respiratory epithelial cysts, and surface respiratory epithelium; (b) Irregular cartilaginous islands (arrow), intervening spindled stroma with loose matrix

REFERENCES


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