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BEYOND THE USUAL EPISTAXIS: SEPTAL LOBULAR CAPILLARY HEMANGIOMA IN A CHILD

Otorhinolaryngology

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ABSTRACT

INTRODUCTION: Lobular capillary hemangioma (LCH) is a benign proliferative vascular tumor originating from the skin and mucosal membranes with the tendency to bleed. In head and neck region LCH is commonly located in oral cavity but rarely found in the nasal cavity. CASE **REPORT:** We present a case of 7 year old girl with LCH of the nasal cavity presenting with nasal obstruction and epistaxis. Examination through anterior rhinoscopy revealed polypoidal mass occupying the left side of nasal cavity on the septum which was red in colour. The patient successfully underwent surgical excision without pre-operative embolization **CONCLUSION:** Lobular capillary hemangioma (LCH) of the nasal cavity is a rare, benign vascular lesion that should be considered in the differential diagnosis of intranasal masses, especially in children. In literature, only nine cases of hemangioma of nasal cavities have been reported in children since 1985.

KEYWORDS

Hemangioma, Capillary; Nasal Septum; Epistaxis; Endoscopy

INTRODUCTION

Lobular capillary hemangioma (LCH) also called granulation tissue type haemangioma, is a lesion of uncertain neoplastic nature and is considered a polypoid form of capillary haemangioma. LCH was first described as Pyogenic granulomas in 1897 by two French surgeons, Antonin Poncet and Dor, who named these lesions botryomycosis hominis (1). As stated by Bhattacharyya et al (2) and Miller et al (3), the term pyogenic granuloma is misleading, as this lesion is neither caused by infection nor characterized by granulation tissue; the most appropriate name for this condition is lobular capillary hemangioma, which was later coined by Mills et al in 1980 (4).

Exact pathogenesis of LCH is not clear but about 30% of these lesions develop after trauma, rapidly increasing to attain a maximum size of 2 cm within a few weeks(5). History of pregnancy is also associated with its evolution (6). LCH typically involves skin and mucous membranes head and neck region (7).

Given that there have been only a limited number of instances of hemangiomas in the nasal cavities have been reported in paediatric population it's important not to miss out in making our diagnosis and later scrupulously managing such cases

CASE REPORT

A 7-year-old girl presented to the ENT outpatient clinic with complaints of intermittent left-sided nasal bleeding for the past 3 months. The episodes were spontaneous, moderate in amount, and occurred about once a week, resolving with conservative management. The patient also reported left-sided nasal obstruction for the same duration. There was no history of anosmia, nasal discharge, or any bleeding disorders. She had no significant past medical or surgical history and had not used any antiplatelet medications.

Anterior rhinoscopy examination revealed a red, polypoidal mass arising from the left nasal septum, which was firm in consistency and bled on probing. Airflow through the left nostril was reduced. No abnormality was noted on posterior rhinoscopy. Rest of otorhinolaryngological examination was unremarkable. Nasal endoscopy demonstrated a pedunculated, polypoidal lesion originating from the anterior part of the nasal septum.

CT of nose and paranasal sinuses shows a well-defined round to oval soft tissue density lesion noted in left nasal cavity measuring 1.6*0.5*1.4cm (AP*TR*CC).

Figure 1 : Endoscopic examination of the left nasal cavity with a 0° rigid endoscope revealing a hemorrhagic lesion

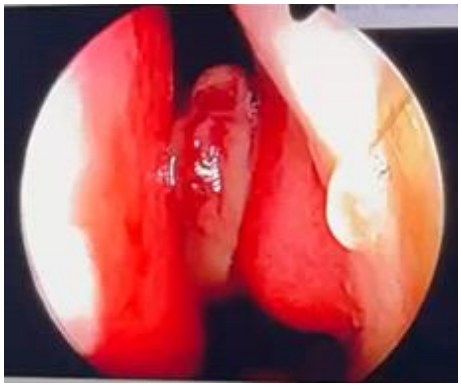
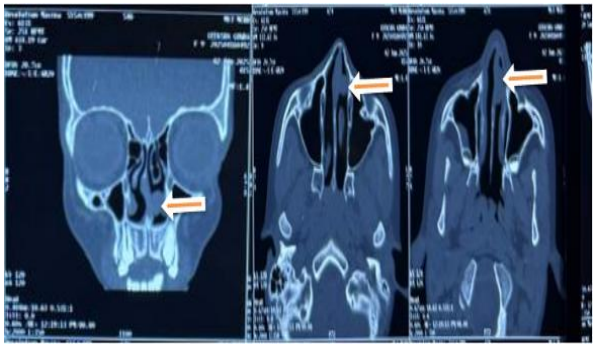
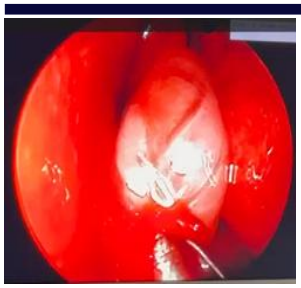


Figure 2: CT-scan (Axial and coronal cut) bony window showed opacity in the left side of the nasal cavity without causing any bone erosion



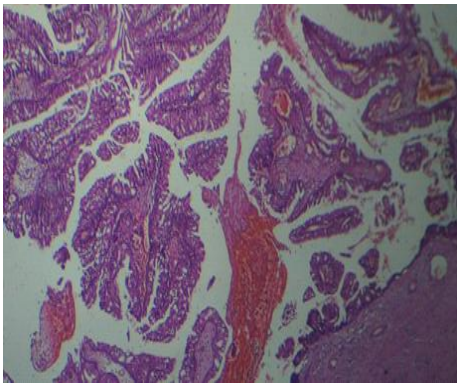
Child underwent endonasal endoscopic excision of polypoidal mass under short general anesthesia. The entire mass was resected and the apparent pedicle was cauterised with bipolar diathermy (figure 3a and 3b). Mass was later sent for histopathological examination. Anterior nasal packing was done for 24 hours and later removed and discharged the child.

Figure 3: Endoscopic removal of haemorrhagic lesion (3a) and resected tissue (3b)



Histological examination revealed findings typical of LCH (figure 4). We followed her till 6 months of duration and shows a healed nasal mucosa with no recurrence.

Figure 4: Histological section showing the pattern of lobular capillary hemangioma (pyogenic granuloma, hematoxylin and eosin x 10)



DISCUSSION

5.1 Nasal cavity LCH is unusual in children. Pediatric capillary hemangiomas represent about 7% of benign head and neck tumors, with the lip being the most common site (38%), followed by the nasal cavity (29%), oral mucosa (18%), and tongue (15%) [8,9]

Lobular capillary hemangioma (LCH) may present in two forms: mucosal and cutaneous. The mucosal type occurs more commonly in women, whereas the cutaneous type is more frequently observed in men [10].

Given the overlapping clinical presentation of several benign and malignant intranasal lesions, thorough evaluation is essential for accurate diagnosis. Benign conditions to be considered in the differential diagnosis include Wegener's granulomatosis, meningoencephalocele, sarcoidosis, nasal polyps, and other hemangiomas, while malignant entities such as angiosarcoma and squamous cell carcinoma should be excluded [11–13].

Contrast-enhanced CT and MRI play a crucial role in the assessment of intranasal masses. On CT imaging, lobular capillary hemangioma (LCH) typically presents as a well-defined soft tissue lesion with intense contrast enhancement. Although true bone destruction is rare, mild bony changes may occasionally be observed due to pressure-induced devascularization by the expanding lesion [14,15]

The primary treatment modality for intranasal lobular capillary hemangioma (LCH) is endoscopic surgical excision, typically combined with meticulous electrodessication of the lesion base to minimize recurrence [16]. In selected cases, preoperative embolization may be employed to reduce intraoperative bleeding and facilitate vascular control [17]. However, its necessity remains debated, as many authors consider complete surgical excision alone to be adequate [18]. Resection is generally performed along the subperichondral or subperiosteal plane, ensuring inclusion of a margin of healthy mucosa. Reported recurrence rates vary considerably, ranging from 0% to 42%, although LCH is notable for its absence of malignant potential [19,20].

CONCLUSIONS

Lobular capillary hemangioma (LCH) of the nasal cavity is an uncommon benign vascular tumor that should be considered among the differential diagnoses of intranasal masses, especially in pediatric patients. While recurrence is rare, regular long-term follow-up is important to ensure full recovery and to promptly identify any signs of recurrence

DECLARATIONS

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1. S.L.M was involved in conceptualization, Validation, Methodology, Software, Supervision, Formal Analysis, Investigation,Writing – Original Draft.

2. M.S did Conceptualization, Data Curation, Formal Analysis, Visualization, and Writing – Review & Editing.

3. B.V.C was involved in Data Curation, Supervision, Project Administration, and Writing – Review & Editing.

4. S.P was involved in Supervision, Validation, Formal Analysis, Investigation, Writing – Review & Editing

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