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Case Report

Ear,Nose and Throat Section

# Intranasal Lobular Capillary Haemangioma of the Anterior Inferior Turbinate: A Case Report

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## ABSTRACT

Intranasal Lobular Capillary Haemangioma (LCH), also known as pyogenic granuloma, is a rare benign vascular lesion of the nasal cavity, typically presenting with recurrent epistaxis and nasal obstruction, predominantly in females. It arises from the nasal septum or turbinates and is characterised by rapid growth with a tendency to bleed easily. Although benign, its presentation often mimics more aggressive conditions, making an accurate diagnosis essential. This is a case report of a 23-year-old female who presented with intermittent left-sided epistaxis for two months and progressive nasal blockage for six weeks. Nasal endoscopy revealed a reddish-yellow, polypoidal mass arising from the anterior inferior turbinate, which bled upon contact. Computed Tomography (CT) revealed a well-defined, hypodense, non-enhancing lesion without bony erosion or sinus involvement. The patient underwent complete endoscopic excision with bipolar cauterisation of the pedicle under general anaesthesia. Intraoperative bleeding was minimal, and the recovery was uneventful. Histopathological examination confirmed LCH, revealing lobular proliferation of capillary-sized vessels lined with plump endothelial cells without atypia or malignancy. The patient remained symptom-free during the six-month follow-up period. This case highlights the importance of considering LCH in young females presenting with recurrent unilateral epistaxis and nasal obstruction. Early diagnosis, imaging, histopathological confirmation, and complete endoscopic excision with pedicle cauterisation are crucial for effective management and prevention of recurrence.

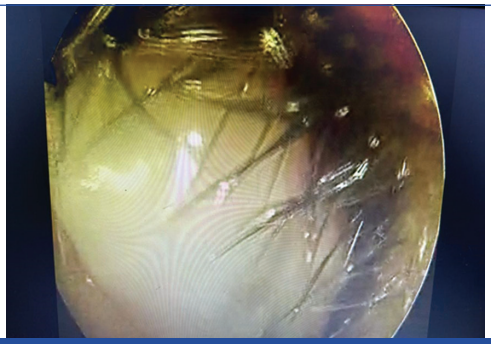
**Keywords:** Epistaxis, Inferior turbinate, Nasal cavity, Nasal obstruction, Pyogenic granuloma

## CASE REPORT

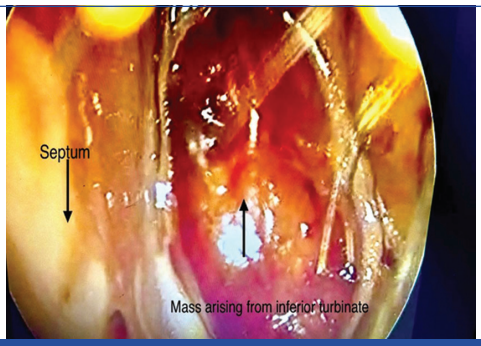
A 23-year-old female presented with complaints of intermittent left-sided epistaxis for the past two months and progressive nasal obstruction for the last six weeks. The bleeding episodes were spontaneous, mild to moderate in amount, and stopped without intervention. The nasal obstruction was persistent and unrelated to posture or exertion. There was no history of trauma, previous nasal surgeries, hormonal therapy, or recent pregnancy. She denied associated symptoms such as nasal discharge, facial pain, headache, or anosmia.

She had no significant past medical history, including hypertension, diabetes, or bleeding disorders, and there was no history of similar illnesses in the family. The patient did not smoke, consume alcohol, or use tobacco products in any form.

On general examination, she was well-nourished, with stable vital signs and no signs of pallor, icterus, or lymphadenopathy. Systemic examinations of the respiratory, cardiovascular, abdominal, and neurological systems were normal. Local nasal examination revealed a soft, reddish-yellow, polypoidal mass occupying the left nasal cavity and arising from the anterior inferior turbinate. The lesion was highly vascular, bled easily on touch, and was insensitive to palpation [Table/Fig-1,2].

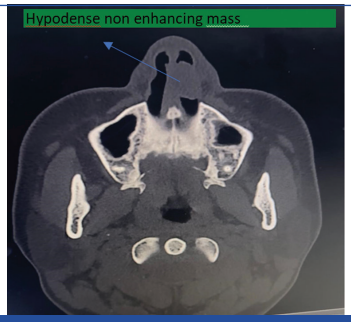


**[Table/Fig-1]:** Diagnostic nasal endoscopy - initial view.



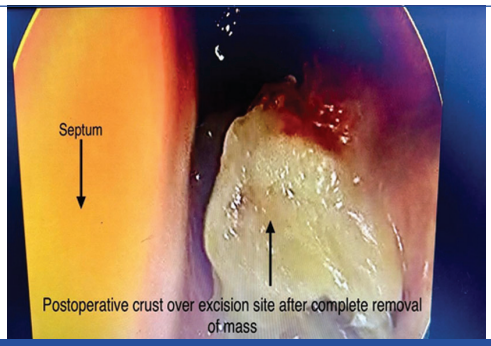

**[Table/Fig-2]:** Reddish-yellow lobulated mass arising from the anterior end of the inferior turbinate with contact bleeding.

A nasal endoscopy confirmed the presence of a polypoidal, reddish-yellow, vascular lesion arising from the anterior inferior turbinate. A CT scan of the paranasal sinuses revealed a hypodense, non-enhancing mass in the left nasal cavity without any evidence of bony erosion or extension into adjacent sinuses [Table/Fig-3]. Based on clinical and radiological findings, a provisional diagnosis of a vascular nasal mass was made, and differential diagnoses considered included nasal polyps, juvenile nasopharyngeal angiofibroma, inverted papilloma, capillary haemangioma, and pyogenic granuloma.

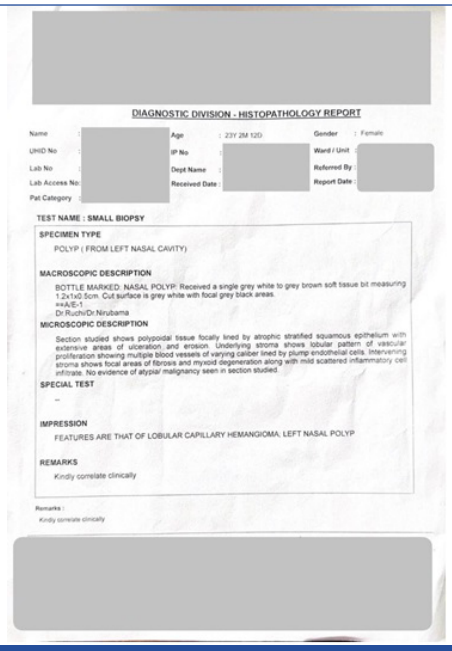



**[Table/Fig-3]:** CT scan showing a hypodense, non-enhancing mass in the anterior left nasal cavity without bony erosion.

The patient underwent complete endoscopic excision of the lesion under general anaesthesia. Bipolar cautery was applied to the pedicle for haemostasis, and intraoperative bleeding was minimal [Table/Fig-4]. The postoperative period was uneventful, and she was discharged on the second postoperative day. Gross examination of the excised specimen showed a 1.2×1×0.5 cm polypoidal mass. Histopathological analysis revealed a stratified squamous epithelium with focal ulceration and a lobular arrangement of capillary-sized vessels lined by plump endothelial cells [Table/Fig-5]. There was no evidence of cellular atypia or malignancy, which confirmed the diagnosis of LCH.




**[Table/Fig-4]:** Postoperative nasal endoscopy showing complete clearance of the mass after endoscopic excision and cauterisation of its base.



DIAGNOSTIC DIVISION - HISTOPATHOLOGY REPORT

Name : [redacted] Age : 23Y 2M 12D Gender : Female
UHID No : IP No : Ward / Unit :
Lab No : Dept Name : Referred By :
Lab Access No : Received Date : Report Date :
Pat Category :

TEST NAME : SMALL BIOPSY

SPECIMEN TYPE
POLYP ( FROM LEFT NASAL CAVITY)

MACROSCOPIC DESCRIPTION
BOTTLE MARKED: NASAL POLYP. Received a single grey white to grey brown soft tissue bit measuring 1.2x1x0.5cm. Cut surface is grey white with focal grey black areas.
=AA/E-1
Dr Ruchi/Dr Nirubama

MICROSCOPIC DESCRIPTION
Section studied shows polypoidal tissue focally lined by atrophic stratified squamous epithelium with extensive areas of ulceration and erosion. Underlying stroma shows lobular pattern of vascular proliferation showing multiple blood vessels of varying caliber lined by plump endothelial cells. Intervening stroma shows focal areas of fibrosis and myxoid degeneration along with mild scattered inflammatory cell infiltrate. No evidence of atypia/ malignancy seen in section studied.

SPECIAL TEST
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IMPRESSION
FEATURES ARE THAT OF LOBULAR CAPILLARY HEMANGIOMA. LEFT NASAL POLYP

REMARKS
Kindly correlate clinically

Remarks :
Kindly correlate clinically

**[Table/Fig-5]:** Printed copy of histopathology report.

## DISCUSSION

Intranasal LCH, also referred to as pyogenic granuloma, is a rare benign vascular lesion of the nasal cavity that predominantly affects females in the second to fourth decades of life [1]. The lesion commonly presents with recurrent unilateral epistaxis and nasal obstruction, as seen in this 23-year-old female patient, who experienced intermittent left-sided epistaxis for two months and progressive nasal blockage for six weeks. This clinical presentation aligns closely with previous studies, confirming the characteristic symptomatology of nasal LCH [2,3].

The pathogenesis of LCH has not been fully elucidated. Trauma, local irritation, and hormonal influences, particularly elevated oestrogen and progesterone levels, have been implicated in the proliferation of capillary lobules [4]. Zhu G et al., demonstrated the presence of oestrogen and progesterone receptors in nasal LCH specimens, suggesting hormonal contribution to lesion growth [5]. Despite these commonly reported triggers, this patient had no history of nasal trauma, hormonal therapy, or pregnancy, consistent with the observations by Peckham-Gregory E et al., who noted that approximately 40% of patients with LCH relapse had no identifiable predisposing factors [6].

Iqbal A et al., reported that anatomical origin plays a critical role in both diagnosis and surgical planning. LCH frequently arises from the anterior nasal septum, particularly from Little's area, which is highly vascular [7]. In contrast, cavernous haemangiomas or other vascular lesions often involve the lateral nasal wall, inferior turbinate and lateral mucosa. The presented case involved the anterior inferior turbinate, highlighting the variability in lesion location and underscoring the importance of a meticulous endoscopic examination.

Although the nasal septum, particularly Little's area, is the most frequent site of origin for LCH, cases arising from other locations, such as the inferior turbinate, middle turbinate, and lateral nasal wall, have been rarely reported [8,9]. Yıldırım U et al., reported an LCH lesion measuring approximately 36×18 mm located on the left inferior turbinate, confirmed via Magnetic Resonance Imaging (MRI), highlighting the uncommon occurrence of lesions at this site [10]. Similarly, Lee JH described an LCH originating from the anterior portion of the inferior turbinate, emphasising its rarity compared to the more common septal lesions [11]. The present case is also unique as the lesion originated from the anterior end of the inferior turbinate, which is an uncommon site compared to the septum. Recognition of such atypical locations is important, since lesions arising from the turbinates may be clinically mistaken for other vascular or polypoidal masses, potentially delaying accurate diagnosis. This strengthens the need to consider alternative sites of origin during endoscopic evaluation to ensure precise diagnosis and appropriate surgical management.

Imaging, particularly CT, is essential for lesion characterisation and surgical planning. Typical findings include a well-defined hypodense mass without bony erosion, distinguishing LCH from more aggressive vascular lesions such as juvenile nasopharyngeal angiofibroma or haemangiopericytoma [12,13]. In this patient, CT revealed a hypodense, non-enhancing lesion confined to the anterior nasal cavity with no evidence of bony involvement, consistent with the findings of previous studies. Such imaging findings not only confirm lesion localisation but also guide the surgical approach to minimise intraoperative complications.

Endoscopic excision is considered the treatment of choice because of superior visualisation, minimal invasiveness, and low recurrence rates in LCH [14]. In the presented patient, complete endoscopic excision with bipolar cauterisation of the pedicle was performed under general anaesthesia. The procedure resulted in minimal intraoperative bleeding, and the patient had an uneventful postoperative recovery and was discharged on the second day. The literature supports this approach; Al Washahi MK et al., reported disease-free status following complete pedicle cauterisation [15].

Histopathological examination remains the gold standard diagnostic modality. Typical features include lobular proliferation of capillary-sized vessels separated by fibrous septa and lined by plump endothelial cells without atypia or mitotic activity [16]. The specimen of the patient demonstrated characteristic histopathological features, establishing the diagnosis and excluding malignancy. The differential diagnosis of vascular nasal lesions is broad and includes angiofibromas, haemangiopericytomas, and malignant vascular tumours. Female sex, lesion location, lack of bony erosion, and histopathological findings are crucial for differentiating LCH from these entities [17,18].

Incomplete pedicle excision is the principal risk factor for recurrence. Iqbal A et al., reported a recurrence when the pedicles were inadequately removed [7]. By ensuring complete excision and pedicle cauterisation, this patient remained symptom-free during the six-month follow-up. However, the literature suggests that recurrences may occur up to 18 months postoperatively [17], highlighting the necessity of prolonged surveillance.

Additional insights from molecular studies suggest that LCH exhibits significant angiogenic activity [19,20]. Attias D et al., identified Vascular Endothelial Growth Factor (VEGF) expression in over 80% of nasal LCH cases, indicating potential targets for future adjuvant therapy for recurrent or multifocal lesions [19]. Non-surgical management options, including corticosteroid therapy or cryotherapy, have demonstrated limited efficacy and higher recurrence rates than surgical excision, as supported by Hanazawa T et al., [21].

The presented case is consistent with previously published reports. Al-Ani RM and Bargas OM reported that 73% cases occurred in females aged 18-40 years with epistaxis as the predominant symptom [22]. Lesion size also influences outcomes; lesions ≤2 cm, such as the 1.2×1×0.5 cm mass in this patient, are associated with a lower recurrence risk.

This case highlights the importance of considering intranasal LCH in young females with recurrent unilateral epistaxis and nasal obstruction. This underscores the value of early diagnosis through endoscopic evaluation, imaging, and histopathological confirmation to ensure accurate differentiation from other vascular lesions. The successful outcome achieved through complete endoscopic excision with pedicle cauterisation emphasises the effectiveness of this approach and the need for long-term follow-up to minimise the risk of recurrence.

## CONCLUSION(S)

This case is reported because of the rarity of intranasal LCH and its clinical presentation. This highlights the importance of considering LCH in young females presenting with recurrent unilateral epistaxis and nasal obstruction. This case emphasises the importance of early diagnosis through endoscopic evaluation, imaging, and histopathological confirmation. The successful outcome following complete endoscopic excision with pedicle cauterisation demonstrates its effectiveness in management and underlines the need for regular follow-up to monitor possible recurrence of the disease.

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- Manual Googling: Oct 01, 2025
- iThenticate Software: Oct 04, 2025 (6%)

**ETYMOLOGY:** Author Origin

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