ISSN: 2754-6691

Journal of Internal Medicine Research & Reports

SCIENTIFIC Research and Community

Case Report

Open Access

# Lobular Capillary Hemangioma of the Nasal Vestibule in a Young Adult: A Rare Case Report

**Pankaj Goyal[1]*, Kishan Kumawat[1] and Nirupama Kothari[2]**

[1]Apollo ENT Hospital, Pal Road, Jodhpur, Rajasthan, India

[2]Sterling Accuris Diagnostics, Saras dairy road, Jodhpur, Rajasthan, India

**ABSTRACT**

Pyogenic granuloma, another name for lobular capillary hemangioma (LCH), is a benign vascular growth that typically affects the skin and mucous membranes of the head and neck. Involvement in the nasal vestibule is rare, even though it can happen inside the nasal cavity. We describe a male patient, age 20, who had a localized mass in his nasal vestibule. A distinct, vascular-looking lesion originating from the nasal vestibular mucosa was discovered during a clinical examination. The lesion was surgically removed in its entirety and sent for histological analysis. The diagnosis of lobular capillary hemangioma was confirmed by histopathology, which showed lobular proliferation of capillary-sized blood vessels bordered with bland endothelial cells amid an edematous and inflammatory stroma. The patient did not experience any complications during the postoperative period, and during follow-up, there was no recurrence. LCH should be taken into account while making a differential diagnosis for a vascular mass of the nasal vestibule, notwithstanding its rarity. In addition to providing tissue for a conclusive histological diagnosis, complete surgical excision is still a useful treatment.

***Corresponding author**

Pankaj Goyal, Apollo ENT Hospital, Pal Road, Jodhpur, Rajasthan, India.

**Received:** October 06, 2026; **Accepted:** October 15, 2026; **Published:** October 20, 2026

**Keywords:** Lobular Capillary Hemangioma, Pyogenic Granuloma, Nasal Vestibule, Nasal Mass, Surgical Excision

## Introduction

A benign, acquired vascular disease known as lobular capillary hemangioma is distinguished histologically by a lobular arrangement of capillary-sized vessels. Although the lesion is not infectious or a real granulomatous process, it has historically been called pyogenic granuloma. The nasal cavity is rarely affected by lobular capillary hemangioma (LCH), but the skin and mucous membranes of the head and neck are more frequently affected.

When a lesion occurs in the nose, it usually originates from the nasal vestibule, inferior turbinate, or anterior nasal septum. It generally presents with nasal obstruction and/or epistaxis. (1–3) Although local trauma, hormonal effects, pregnancy, and other factors have been linked, the precise pathophysiology is yet unknown [1-3]. Histopathological investigation is crucial for a final diagnosis because nasal LCH may clinically resemble other vascular or neoplastic diseases. Complete surgical excision with management of the lesion base or vascular pedicle is usually regarded as the best course of action and is linked to a satisfactory outcome [4,5]. Only a small number of occurrences have been documented in the literature, making the nasal vestibule a very uncommon place [6].

## Case Report

A 20-year-old man with a localized lesion affecting the left nasal vestibule arrived to the Apollo E.N.T. hospital's outpatient department. The patient had no noteworthy medical or surgical history and was otherwise in good health. A well-defined reddish vascular mass was found in the left nasal vestibule upon local inspection (Figure 1 and 2). For five to six months, there was a history of frequent nose picking. The patient reported that intermittent nose bleeding from the same side had stopped on its own. The lesion was affixed to the vestibular mucosa and ranged in consistency from mild to firm. The tumor had a vascular appearance and was prone to bleeding upon manipulation, as is typical of lobular capillary hemangiomas. Cervical lymphadenopathy, facial deformities, or surrounding tissue infiltration were all absent. The rest of the examination of the throat, nose, and ears was unremarkable. Appropriate laboratory tests were conducted based on the lesion's size and clinical findings. The differential diagnosis includes lobular capillary hemangioma, other benign vascular lesions, inflammatory polyps, and, less frequently, various sinonasal neoplasms based on the clinical appearance and location. Due to the vascular nature of the lesion, intraoperative bleeding was anticipated during surgery planning. Under local anesthetic, the nasal vestibular tumor was surgically removed in its entirety. With sufficient control over the vascular base, the lesion was separated from its attachment and excised in its entirety (Figure 3). Local cauterization was used to produce hemostasis. A histological analysis was performed on the removed specimen. The patient was released with the proper local nasal care and follow-up after an uncomplicated surgical time. At a later assessment, there was no sign of a recurrence or persistent lesion, and the surgical site was healing adequately.

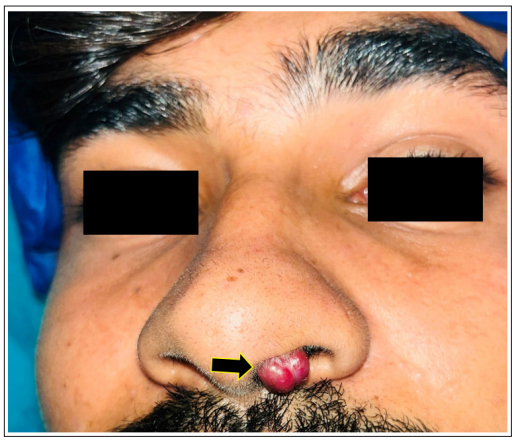


**Figure 1:** Clinical Picture Showing Solitary Reddish Mass Arising from the Left Vestibule of the Nose, Near to Septum. (arrow mark)

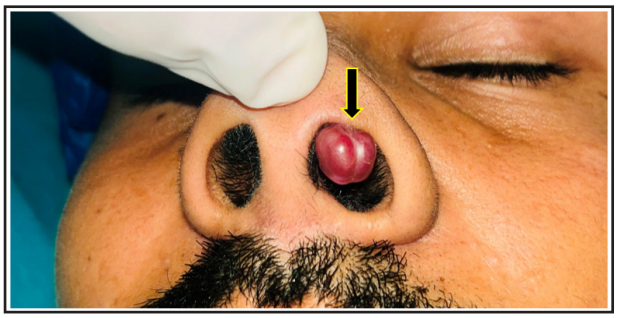


**Figure 2:** Clinical Picture After Elevation of Nose to see the Pedunculated Attachment of Mass. (downward arrow mark)

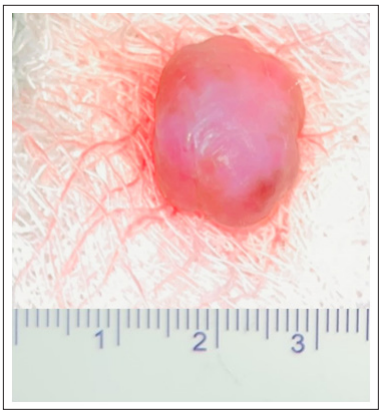



**Figure 3:** Main Surgical Specimen

## Histopathological Examination

A well-defined soft-tissue mass was found during gross examination. A lobular proliferation of many tiny capillary-sized blood capillaries lined by endothelial cells was seen under a microscope. The edematous, fibrovascular, and inflammatory stroma separated the vascular channels, which were organized in distinctive lobules. These lesions may have focal surface ulceration and infiltration of inflammatory cells. There was no evidence of destructive invasion, malignant vascular growth, or notable cellular atypia. The benign cytological characteristics and the distinctive lobular arrangement of capillary vessels were consistent with lobular capillary hemangioma (pyogenic granuloma). In order to differentiate LCH from other vascular lesions of the nasal cavity, this histological appearance is crucial (Figure 4 a, b and c) [1,4,7].

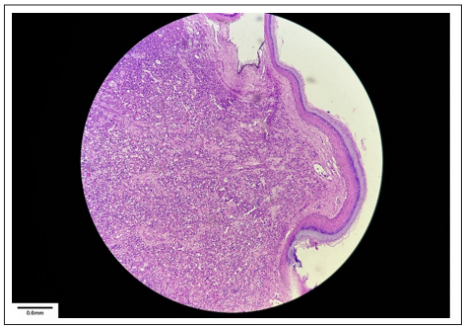


Figure 4.a

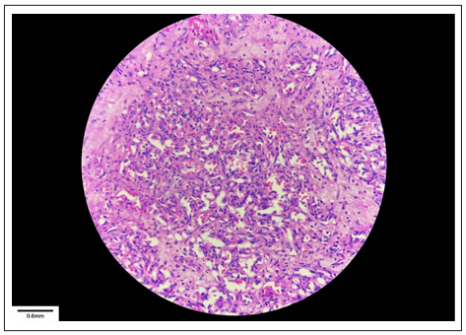


Figure 4.b

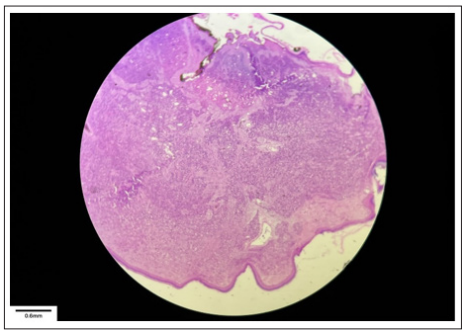


Figure 4.c

**Figure 4 a, b and c:** Histopathological Slide

## Discussion

Although it is an unusual lesion of the nasal cavity, lobular capillary hemangioma is a very common benign vascular proliferation at cutaneous and mucosal sites. Particularly uncommon is the nasal vestibule. LCH of the nasal vestibule in an 8-year-old child was reported by Karagama et al., who stressed the need of including this lesion in the differential diagnosis of a nasal vestibular tumor [6]. The anterior nasal septum, inferior turbinate, and vestibular area have been identified as locations of intranasal LCH, according to further publications and case series [4,5,8].

The most commonly reported symptoms are nasal obstruction and recurring epistaxis, which are typically associated with the vascular character of the lesion [4,5]. Clinically, the lesion may resemble other benign or malignant sinonasal lesions and manifest as a fast-growing, friable, red or reddish-purple mass that bleeds easily. Researchers still have not completely comprehended the pathogenesis of LCH. Numerous explanations have been suggested, such as aberrant vascular growth, hormonal effects, chronic irritation, and local trauma. A percentage of patients with nasal LCH have been found to have experienced trauma, and hormonal factors are especially important when lesions develop during pregnancy [1-4]. However, as can happen

to young, otherwise healthy people, many patients have no discernible risk factor. A lobular arrangement of tiny capillaries, frequently accompanied by surface ulceration, inflammatory alterations, and an edematous or fibromyxoid stroma, are the histological characteristics of LCH. LCH is distinguished from other vascular lesions and nonspecific granulation tissue by its unique architecture [1,7]. Clinical, radiological, and histological features are correlated to make the diagnosis of nasal LCH. The location, size, attachment, and vascularity of the lesion can all be determined with endoscopic inspection. In addition to showing the distinctive strong enhancement, contrast-enhanced CT can be used to assess the extent of the lesion and rule out any related bone deterioration [3,5]. Because hemangiomas, angiofibromas, inflammatory polyps, and other vascular neoplasms can all have similar clinical appearances, histopathological investigation is still necessary for a conclusive diagnosis. Depending on the location and size of the lesion, a vascular nasal mass in a young male patient should be thoroughly examined to rule out other significant vascular tumors. Because it offers a definitive diagnosis and therapy at the same time, complete surgical excision is thought to be the best course of action for nasal LCH. Excellent local control is typically achieved by endoscopic excision along with cauterization or electrodessication of the lesion base [4,5,8]. Preoperative vascular evaluation or embolization may be taken into consideration in some large or extremely vascular lesions. After full excision, recurrence is rare but can happen, especially if the lesion is not entirely eradicated. The most frequent presenting symptom of sinonasal LCH, according to a clinicopathological investigation, is epistaxis. It also showed that local recurrence is possible, highlighting the significance of thorough excision and suitable follow-up [7]. The 20-year-old male patient in this instance had a lesion that was restricted to the nasal vestibule. The diagnosis of lobular capillary hemangioma was confirmed by histological analysis following complete surgical excision. The role of full excision as a diagnostic and therapeutic technique is supported by the excellent postoperative course. Recognizing LCH in the nasal vestibule is crucial due to its rarity, especially since its vascular appearance can result in a wide differential diagnosis.

## Conclusion

Lobular capillary hemangioma of the nasal vestibule is a rare benign vascular lesion that should be investigated as a differential diagnosis for a circumscribed nasal vestibular mass, especially if it is reddish, friable, or bleeding. Although clinical and radiological symptoms may indicate a vascular lesion, a definite diagnosis requires histological evidence that shows the distinctive lobular proliferation of capillary-sized arteries. Complete surgical excision with sufficient hemostasis remains an effective treatment option with a good prognosis. Awareness of this uncommon presentation can aid in early diagnosis and proper treatment, preventing avoidable diagnostic delays [9,10].

## Compliance with Ethical Standards

The procedure performed in this case report was in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

## Funding

This study is not funded by any resources.

## Conflict of Interest

The author (s) declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this paper.

## Ethical Approval

For the purpose of publishing this case report, the patient's written informed consent was obtained.

## References

1. Patrice SJ, Wiss K, Mulliken JB (1991) Pyogenic granuloma (lobular capillary hemangioma): a clinicopathologic study of 178 cases. Pediatr Dermatol 8: 267-276.
2. Patil P, Singla S, Mane R, Jagdeesh KS (2013) Nasal lobular capillary hemangioma. J Clin Imaging Sci 3: 40.
3. Pagliai KA, Cohen BA (2004) Pyogenic granuloma in children. Pediatr Dermatol 21: 10-13.
4. Iwata N, Hattori K, Nakagawa T, Tsujimura T (2002) Hemangioma of the nasal cavity: a clinicopathologic study. Auris Nasus Larynx 29: 335-339.
5. Alotaibi JK, Alotayf OA, Almahdi MJ, Halwani M (2024) Pediatric intranasal lobular capillary hemangioma: a case report and review of the literature. J Surg Case Rep 2024: rjae119.
6. Karagama YG, Howarth K, Steel PRM, Spencer MG (2002) Lobular capillary haemangioma of the nasal vestibule: a rare entity. Int J Pediatr Otorhinolaryngol 66: 71-75.
7. Puxeddu R, Berlucchi M, Ledda GP, Parodo G, Farina D, et al. (2006) Lobular capillary hemangioma of the nasal cavity: a retrospective study on 40 patients. Am J Rhinol 20: 480-484.
8. Mariño-Sánchez F, Lopez-Chacon M, Jou C, Haag O (2016) Pediatric intranasal lobular capillary hemangioma: report of two new cases and review of the literature. Respir Med Case Rep 18: 31-34.
9. Nayak DR, Bhandarkar AM, Shivamurthy A, Joy J (2014) Intranasal lobular capillary haemangioma. BMJ Case Rep 2014: bcr2014207196.
10. Alghamdi B, Al-Kadi M, Alkhayal N, Alhedaithy R, Al Mahdi MJ (2020) Intranasal lobular capillary hemangioma: a series of five cases. Respir Med Case Rep 30: 101073.

**Copyright:** ©2026 Pankaj Goyal. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.