



ANTERIOR NASAL HEMANGIOMATOUS POLYP IN A YOUNG ADULT: A RARE CASE REPORT”

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Abstract

Nasal hemangiomas are rare benign vascular tumors of the sinonasal cavity and may clinically mimic more common lesions such as nasal polyps or mesenchymal tumors. Their nonspecific presentation can make diagnosis challenging, necessitating careful correlation of clinical examination, radiologic assessment, and histopathology. Nasal hemangioma, though uncommon, should be considered in the differential diagnosis of anterior nasal masses in young adults presenting with obstruction and epistaxis.

We report the case of a 19-year-old male presenting with progressive left-sided nasal obstruction and intermittent epistaxis for several months. Endoscopic excision was done and sent for Histopathological examination where it was confirmed to be Nasal Hemangiomatous Polyp.

Keywords: Nasal hemangioma, Anterior nasal mass, Nasal obstruction, Epistaxis, Endoscopic excision, Vascular tumor, Sinonasal lesion, Cavernous hemangioma, Capillary hemangioma

INTRODUCTION

Hemangiomas are benign vascular tumors characterized by the proliferation of endothelial cells. They are among the most common soft-tissue tumors of the head and neck region but are relatively uncommon within the nasal cavity itself (1,2). Nasal hemangiomas account for less than 20% of hemangiomas arising in the upper aerodigestive tract and typically originate from the nasal septum, vestibule, or turbinates (1,3). They can present in both pediatric and adult populations, with capillary hemangiomas occurring more frequently in children, while cavernous hemangiomas are more common in adults (4).

Clinically, nasal hemangiomas often present with unilateral nasal obstruction, epistaxis, or a visible anterior nasal mass. However, these symptoms are nonspecific and can mimic other common

conditions, including nasal polyps, angiofibroma, leiomyoma, or inverted papilloma (2,5). This makes radiologic assessment an essential diagnostic tool. Non-contrast CT (NCCT) typically shows a well-defined soft-tissue lesion, while contrast-enhanced imaging may show enhancement suggestive of vascularity (1,5). Nevertheless, definitive diagnosis requires histopathological evaluation.

Although benign, nasal hemangiomas require precise identification because incomplete excision can lead to recurrence. Endoscopic surgical removal remains the treatment of choice and is associated with excellent outcomes and minimal morbidity (3,4). This case highlights a rare presentation of an anterior nasal cavity hemangioma in a 19-year-old male, emphasizing the importance of clinical, radiologic, and histopathologic correlation in managing nasal vascular lesions.

CASE PRESENTATION

A 19-year-old male presented to the ENT outpatient clinic with complaints of left-sided nasal obstruction for the past 4–6 months. The obstruction was progressive, non-alternating, and more noticeable on exertion. He also reported intermittent episodes of mild anterior epistaxis, typically triggered by nose blowing, but without any history of severe bleeding. There was no history of nasal trauma, previous nasal surgery, allergy symptoms, facial pain, anosmia, or systemic illness.

General physical examination was unremarkable. On Anterior Rhinoscopy, a well-defined, smooth-surfaced, reddish soft-tissue mass was noted occupying the left anterior nasal cavity, arising from the anterolateral wall. The lesion was non-tender and did not bleed on gentle probing, but appeared congested and vascular [FIGURE 1A, B]. The right nasal cavity was normal.



FIGURE 1 A, B – Preoperative picture showing left side nasal hemangioma

Diagnostic nasal endoscopy revealed a homogenous, reddish, sessile mass measuring approximately 2 × 2cm. The lesion occupied the left anterior nasal passage, causing partial obstruction but without extension into the middle meatus, floor, nasopharynx, or posterior nasal cavity. There was no purulent discharge, no mucosal ulceration, and no evidence of bony destruction.

To further assess the extent and nature of the lesion, an NCCT PNS was performed. It demonstrated a well-defined homogenous soft-tissue density lesion in the left anterior nare [FIGURE 2]. No intralesional calcification, bony erosions or extension into paranasal sinuses was seen. Nasal septum was deviated towards right side with bony spur.

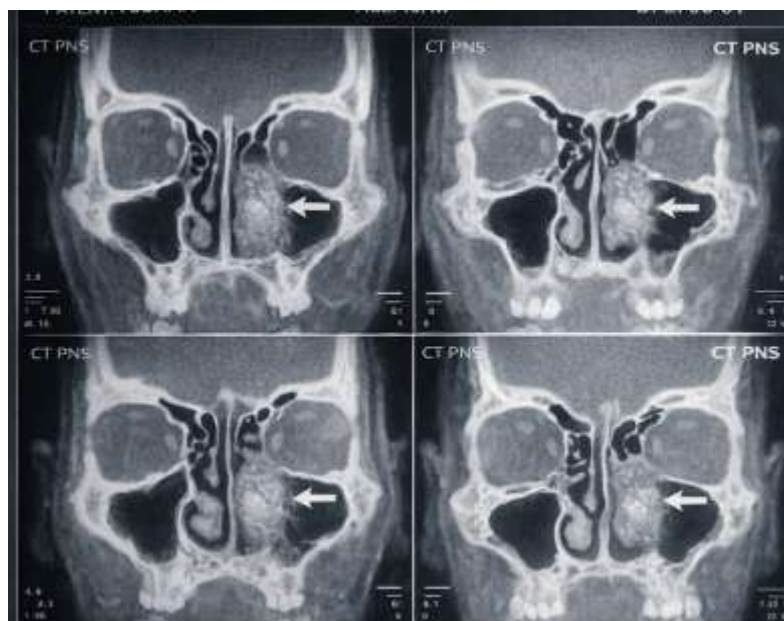


FIGURE 2 – NCCT PNS showing well defined homogenous soft tissue density anterior to left inferior turbinate.

Radiologic differentials offered included nasal polyp, leiomyoma, and hemangioma, with the vascular appearance on clinical examination favoring hemangioma.

Routine blood tests including complete blood count and coagulation profile were within normal limits.

The patient was planned for endoscopic excision under general anesthesia. Intraoperatively, a reddish, well-encapsulated vascular mass originating from the lateral wall was identified. The mass was carefully dissected and excised completely using endoscopic instruments. Intraoperative bleeding was minimal which was controlled with cauterization.

The excised specimen was sent for histopathological examination, which confirmed the diagnosis of nasal hemangioma with features of dilated vascular channels lined by endothelial cells, without atypia or malignant change [FIGURE 3].

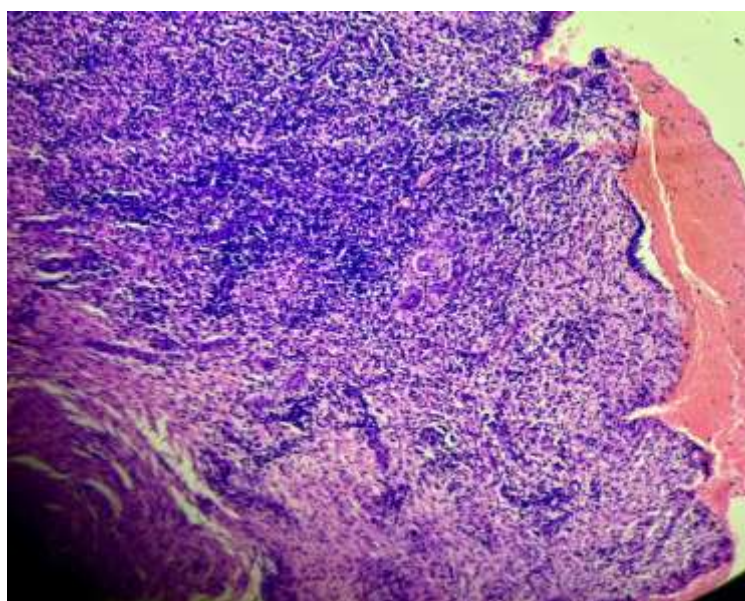


FIGURE 3 – Microphotograph showing polypoidal bits of sinonasal mucosa displaying oedema , dense chronic inflammation and proliferation of small thin walled vessels.

The postoperative period was uneventful. The patient was discharged on the second postoperative day with nasal saline irrigation and topical antibiotic ointment. At follow-up visits at 1 week, 1 month, and 3 months, the patient reported complete resolution of nasal obstruction with no recurrence of the lesion.

DISCUSSION

Hemangiomas of the nasal cavity are rare benign vascular tumors arising from proliferation of endothelial cells. They account for a small subset of sinonasal tumors, with most hemangiomas occurring in the skin or oral mucosa rather than inside the nasal cavity (1,6). Among intranasal hemangiomas, the septum especially Kiesselbach's area is the most commonly affected site, however, involvement of the anterior nasal cavity, vestibule, or lateral nasal wall, as in the present case, has also been reported (3,4).

Nasal hemangiomas typically present with symptoms such as unilateral nasal obstruction and recurrent epistaxis. These symptoms overlap significantly with other common nasal pathologies, increasing diagnostic difficulty. Because of their vascularity, hemangiomas may clinically mimic pyogenic granuloma (lobular capillary hemangioma), hemorrhagic polyp, angiofibroma (in males), or even hypervascular malignant tumors such as hemangiopericytoma and sinonasal malignancies (7,8).

Radiological imaging is crucial in differentiating hemangiomas from other intranasal masses. NCCT usually reveals a well-defined soft-tissue density without bony erosion, as seen in this case. Contrast-enhanced CT or MRI, however, provides more diagnostic specificity due to their ability to demonstrate vascular enhancement patterns (9). MRI is particularly helpful, with hemangiomas showing intermediate T1, high T2 signal intensity, and strong post-contrast enhancement (10). Nevertheless, due to cost and availability constraints, NCCT remains the most commonly used first-line tool in developing clinical setups.

Histopathology remains the gold standard for diagnosis. Capillary hemangiomas exhibit lobules of proliferating capillaries, whereas cavernous hemangiomas show dilated vascular channels lined by flattened endothelial cells with little to no atypia (4,11). Distinguishing these lesions from lobular capillary hemangiomas is important, as the latter tends to be more friable and associated with rapid growth and bleeding (12).

Endoscopic surgical excision is considered the treatment of choice for nasal hemangiomas. Modern endoscopic techniques enable precise dissection, minimal blood loss, and complete excision with preservation of adjacent structures. Preoperative embolization is usually unnecessary for small or moderately sized lesions but may be indicated in large or deeply vascular lesions to reduce intraoperative bleeding (13). Complete excision typically ensures cure, with recurrence rates reported to be less than 10% across various studies (8,13,14).

Nasal hemangiomas should be differentiated from juvenile nasopharyngeal angiofibroma, particularly in young males with epistaxis, however, hemangiomas lack the aggressive vascularity and characteristic radiographic features of angiofibroma. Unlike angiofibromas, hemangiomas typically do not cause bony remodeling or extension into adjacent compartments (9,13).

In the present case, the patient's symptoms, clinical findings, and imaging characteristics were consistent with a benign vascular lesion. Complete endoscopic excision resulted in complete symptom relief and no recurrence on follow up consistent with the excellent prognosis described in the literature.

This case reinforces the importance of considering hemangioma in the differential diagnosis of well-defined anterior nasal masses in young adults. Early diagnosis and appropriate endoscopic management ensure excellent functional and cosmetic outcomes with minimal morbidity.

CONCLUSION

Nasal hemangiomas are rare benign vascular tumors that can present with nonspecific symptoms such as unilateral nasal obstruction and intermittent epistaxis, often mimicking other common intranasal pathologies. Accurate diagnosis requires a combination of thorough clinical examination,

radiologic evaluation, and histopathologic confirmation. NCCT plays an important initial role by delineating the extent of the lesion, while endoscopic assessment provides essential information regarding its vascularity and site of origin.

Endoscopic surgical excision remains the treatment of choice, offering excellent visualization, minimal morbidity, and complete removal of the lesion. Recurrence is uncommon when the lesion is thoroughly excised. The present case highlights the importance of considering hemangioma in the differential diagnosis of well-defined anterior nasal masses in young adults. Early identification and appropriate management ensure an excellent prognosis and prevent unnecessary complications.

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