

# Lipoma of the nasal septum: A case report

Hesam Jahandideh<sup>1,2</sup>  | Fatemeh Dehghani Firouzabadi<sup>1,2</sup> |  
 Mohammad Dehghani Firouzabadi<sup>1,2</sup> | Delaram Jan<sup>1,2</sup> | Maryam Roomiani<sup>1,2</sup> 

<sup>1</sup>ENT and Head & Neck Research Center, The Five Senses Institute, Iran University of Medical Sciences, Tehran, Iran

<sup>2</sup>Department of Otolaryngology-Head and Neck Surgery, Firoozgar Hospital, Iran University of Medical Sciences, Tehran, Iran

## Correspondence

Maryam Roomiani, ENT and Head & Neck Research Center, The Five Senses Institute, Iran University of Medical Sciences, Tehran, Iran.

Email: maryamroomiani3@gmail.com

## Abstract

Even routine diagnoses, such as septal deviation, which most people do not think need imaging, require careful examination because rare diagnoses such as lipoma may occur in the nose. Careful examination and imaging lead to the best treatment.

## KEYWORDS

case report, lipoma, nasal obstruction, nasal septum, nasopharynx mass

## 1 | INTRODUCTION

A 22-year-old man presented to our hospital with the chief complaint of nasal obstruction. Computed tomography (CT) without contrast revealed unusual septal thickness, and subsequent magnetic resonance imaging showed an amorphous heterogenous fat content mass. The mass was excised using submucoperichondrial approach with no complication.

The lipoma is the most common soft tissue neoplasm in adults. Its highest incidence is among those aged 40-50 years and is slightly more prevalent in males. It accounts for differential diagnosis of nasopharynx mass as a benign one that, in most cases, is located in the upper back, shoulders, arms, buttocks, and upper thigh.<sup>1</sup> The prevalence of this painless tumor is one percent in the general population and is not common in the midface, and it rarely occurs in paranasal sinuses or nasal cavity due to the scarce amount of fatty tissue.<sup>2</sup> Here, we have reported a rare case of nasal lipoma, which is found on the nasal septum.

## 2 | CASE PRESENTATION

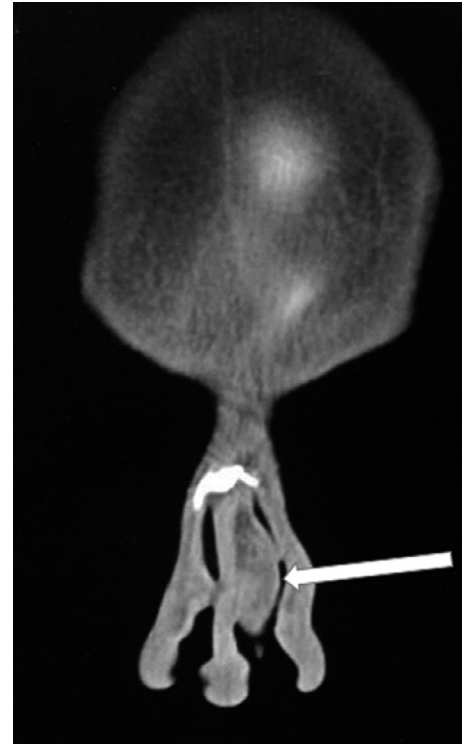
A 22-year-old man presented to our hospital with left-sided nasal obstruction for more than 2 years. The patient's medical history, including the previous history of allergy or surgery, was nonspecific. In physical examination, left-sided septal bulging, which was soft and compressible, was observed (Figure 1). A more careful inspection of the upper part of the septum revealed a distinct small round mass (Figure 2). CT scan without contrast revealed a hypodense mass with 1.5 cm thickness (Figure 3). Further evaluation with magnetic resonance imaging (MRI) to inspect any possible intracranial connection showed an amorphous heterogenous 54\*8\*94 mm mass located in the left anterior part of the nasal septum. The mass was a hyper signal in T2-weighted images and did not enhance after gadolinium injection, contrary to its overlying normal nasal mucosa (Figures 4 and 5). An incisional biopsy was performed on the mass, and the homogenous yellow specimen was reported lipoma. On histopathological examination, the left nasal cavity lesion excision showed a piece of creamy, firm

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2020 The Authors. *Clinical Case Reports* published by John Wiley & Sons Ltd



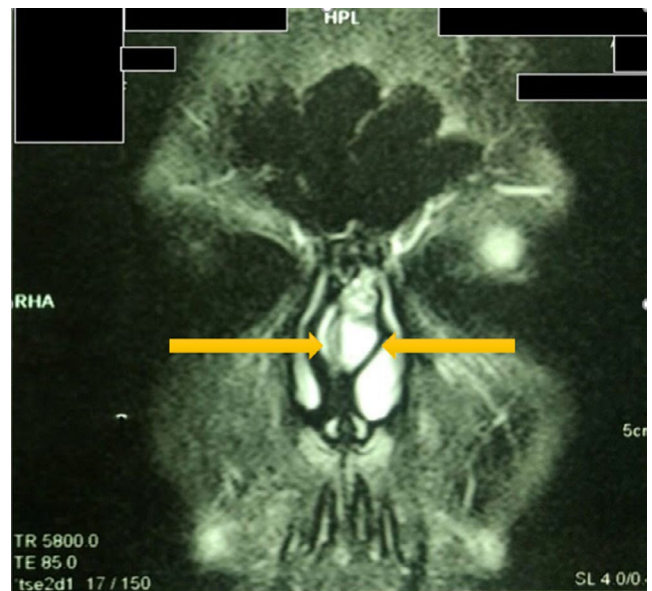
**FIGURE 1** Nasal deformity and deviation due to underlying septal mass



**FIGURE 3** Hypodense mass 54\*8\*94 is nasal septum



**FIGURE 2** More careful inspection of upper part of setup revealed a round mass

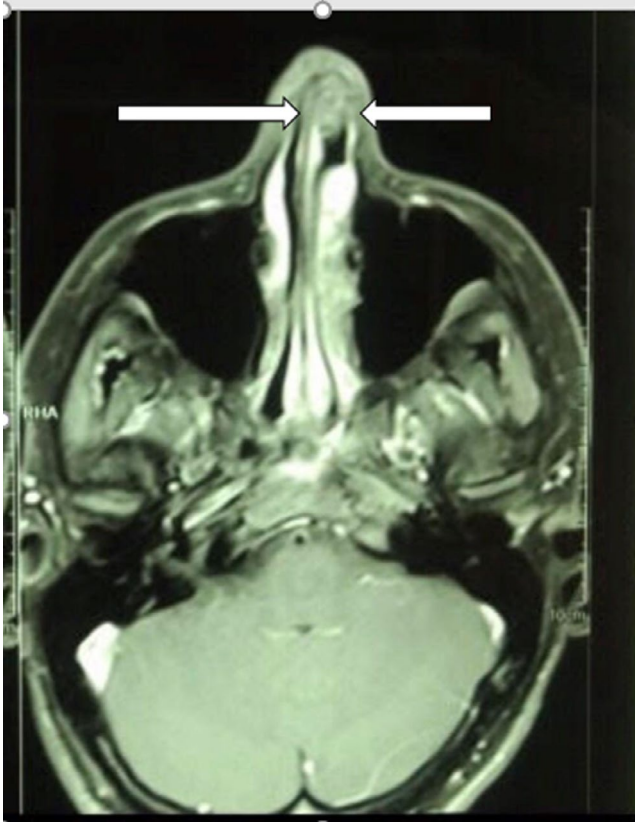


**FIGURE 4** T2-weighted MRI shows bizarre-shaped 54\*8\*94 mm hyper signal mass located in left anterior part of the nasal septum

tissue. Under general anesthesia, the mucoperichondrial flap was elevated using left hemitransfixion incision, and the tumor was excised completely. Histopathology report confirmed lipoma. The patient presented no complications during or after surgery. The patient was followed up for 6 months. His nasal obstruction was improved significantly, and the apparent nasal deviation was alleviated to some degree. No recurrence of the tumor was detected in the follow-up period.

### 3 | DISCUSSION

Lipoma is a benign slow-growing neoplasm that mostly consists of mature adipoid cells. Thirteen percent of lipomas occur in head and neck, which the posterior neck,



**FIGURE 5** IV contrast T1-weighted MRI. nonenhancing mass in left anterior part of the nasal septum

chicks, tongue, floor of the mouth, and buccal sulcus are the most common.<sup>3,4</sup> Lipoma of the nasal cavity is rare and is mostly reported in children as a single mass or a piece of a syndrome.<sup>5-7</sup> There are few reports of lipomas in different parts of the nose, including nasopharynx, vestibule, nasal dorsum, and inferior turbinate.<sup>4,8-12</sup> Patients may be asymptomatic, or like other masses occurring in sinuses and nasal cavity, they may present with symptoms, including nasal obstruction, facial edema, tenderness, rupture, and hemorrhage.<sup>8,13-17</sup>

There have been reports of pediatric nasal lipoma and their associations with midline facial defects and different syndromes.<sup>18</sup> Pai syndrome has been described primarily in 1987 as a condition consisting of congenital nasal lipoma, midline cleft of upper lip, skin and nasal polyps, and lipoma of the central nervous system.<sup>6,19</sup> Other reports indicated the nonsyndromic association of nasal lipoma and intracranial lipoma, especially in the corpus callosum.<sup>15</sup> In adults, however, the first case of nasal septal lipoma has been reported in 2000 in a 21 years old woman referring with unilateral nasal obstruction and posterior septal soft tissue mass.<sup>4</sup> CT scan can reveal a homogenous mostly not encapsulated low-density mass, facilitating the diagnosis by showing the characteristics of fat tissue.<sup>20</sup> It can also help in finding the possible intracranial extension and

bony midline defect of the face and skull base. Some authors suggested using CT in all cases of pediatric midline nasal lipomas.<sup>5</sup>

In our study, nasal septal lipoma was reported in a 22-year-old man. Tumor removal was done using the mucoperichondrial flap. Differential diagnoses of nasal lipoma are dermoid cysts, teratoma, glioma, encephalocele, and meningomyelocele, which all of them may resemble a deviation if the septum is examined in less than a meticulous way<sup>18</sup>

## 4 | CONCLUSION

Lipoma of the nasal septum is a rare presentation. We reported a case of nasal septal lipoma, presented with a nasal obstruction that could easily pass as a septal deviation without a conscientious examination. Performing imaging studies before septoplasty in cases of nasal obstruction with questionable physical examination could lead to a precise diagnosis.

## ACKNOWLEDGMENT

Published with written consent of the patient.

## CONFLICT OF INTEREST

Authors declare no conflict of interest.

## AUTHOR'S CONTRIBUTIONS

HJ, MR, and FDF: conceptualized and designed the work. HJ, FDF, MDF, DJ, and MR: critically revised the article. All authors: approved the final version and have the agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

## ETHICAL APPROVAL

This study protocol was approved by the local ethics committee of the Iran University of Medical Sciences. Informed consent was obtained from the patient before the study.

## ORCID

Hesam Jahandideh  <https://orcid.org/0000-0002-3084-1439>

Maryam Roomiani  <https://orcid.org/0000-0003-0282-2318>

## REFERENCES

1. F.M. Enzinger SWW. *Soft Tissue Tumors*, 3rd edn; 1995.
2. Fu YS, Perzin KH. Non-epithelial tumors of the nasal cavity, paranasal sinuses and nasopharynx: a clinicopathologic study. VIII. Adipose tissue tumors (lipoma and liposarcoma). *Cancer*. 1977;40(3):1314-1317.

3. Ayasaka N, Chino T Jr, Chino T, Antoh M, Kawakami T. Infiltrating lipoma of the mental region: report of a case. *Br J Oral Maxillofac Surg*. 1993;31(6):388-390.
4. Takasaki K, Yano H, Hayashi T, Kobayashi T. Nasal lipoma. *J Laryngol Otol*. 2000;114(3):218-220.
5. AbdollahiFakhim S, Bayazian G, Notash R. Nasal septal lipoma in a child: Pai syndrome or not? *Int J Pediatr Otorhinolaryngol*. 2014;78(4):697-700.
6. Szeto C, Tewfik TL, Jewer D, Rideout A. Pai syndrome (median cleft palate, cutaneous nasal polyp, and midline lipoma of the corpus callosum): a case report and literature review. *Int J Pediatr Otorhinolaryngol*. 2005;69(9):1247-1252.
7. Azurdia J, Burke L, Laub D Jr. Pai syndrome: median cleft lip, corpus callosum lipoma, and fibroepithelial skin tag. *Eplasty*. 2014;14:ic7.
8. Oddie JW, Applebaum EL. Lipoma of the nasopharynx. *Archiv Otolaryngol*. 1982;108(1):57.
9. Grybauskas V, Shugar M. Nasopharyngeal lipoma. *Laryngoscope*. 1983;93:362-363.
10. Abulezz T, Allam K. Nasal subcutaneous lipoma, a case report. *Rhinology*. 2008;46(2):151-152.
11. Mahmood NS. An extremely rare case of a nasal turbinate lipoma. *Dentomaxillofac Radiol*. 2010;39(1):64.
12. Ozturk M, Ila K, Kara A, Iseri M. Fibrolipoma of the nasal septum; report of the first case. *J Otolaryngol*. 2013;42(1):11.
13. Goldstein MA. Lipoma of the maxillary antrum. *Laryngoscope*. 1915;25:142-144.
14. Silbernagel CE. Lipoma of the maxillary antrum. *Laryngoscope*. 1938;48:427-442.
15. Shah A, Rai S, Goel A. Corpus callosal lipoma extending as nasal encephaloceol/cranial lipomeningocele. *J Clin Neurosci*. 2017;45:157-159.
16. Pryor SG, Orvidas LJ, Moore EJ. Lipoma of the nasal dorsum: an unusual presentation of a common neoplasm. *Otolaryngol Head Neck Surg*. 2007;136(1):151-152.
17. Puri ND, Vaid A, Sawhney KL. Fibrolipoma of the nasopharynx. *J Indian Med Assoc*. 1979;72(9):215-216.
18. Hollis LJ, Bailey CM, Albert DM, Hosni A. Nasal lipomas presenting as part of a syndromic diagnosis. *J Laryngol Otol*. 1996;110(3):269-271.
19. Morice A, Galliani E, Amiel J, et al. Diagnostic criteria in Pai syndrome: results of a case series and a literature review. *Int J Oral Maxillofac Surg*. 2019;48(3):283-290.
20. Tien RD, Hesselink JR, Chu PK, Szumowski J. Improved detection and delineation of head and neck lesions with fat suppression spin-echo MR imaging. *AJNR Am J Neuroradiol*. 1991;12(1):19-24.

**How to cite this article:** Jahandideh H, Dehghani Firouzabadi F, Dehghani Firouzabadi M, Jan D, Roomiani M. Lipoma of the nasal septum: A case report. *Clin Case Rep*. 2020;8:3027–3030. <https://doi.org/10.1002/ccr3.3359>