






Turkish Journal of Geriatrics
DOI: 10.31086/tjgeri.2019.98
2019;22 (2):233-236

- Yavuz Sultan Selim YILDIRIM¹ 
- Nihat SUSAMAN¹ 
- Orkun EROĞLU¹ 

CORRESPONDANCE

Yavuz Sultan Selim YILDIRIM
Elazığ Fethi Sekin Research and Training
Hospital, Otolaryngology Clinic, Elazığ,
Turkey.

Phone: +904246066000
e-mail: yssyildirim@hotmail.com

Received: 24/01/2019
Accepted: 11/05/2019

¹ Elazığ Fethi Sekin Research and Training
Hospital, Otolaryngology Clinic, Elazığ,
Turkey.

CASE REPORT

A RARE CASE OF CONCHA BULLOSA OSTEOMA IN A GERIATRIC PATIENT

ABSTRACT

The most common location of osteoma is the mandible in head and neck. In the paranasal sinuses, it is most commonly located in the frontal sinus and then in the ethmoid and maxillary sinuses, respectively. Osteomas appear rarely in the nasal cavity and even more rarely in the turbinates. A sixty six year old woman who had presented with complaints of nasal obstruction, left-sided facial pain and headache was referred to our department. Paranasal sinus computed tomography (CT) revealed a pneumatized left middle turbinate, and on coronal, sagittal, and axial CT sections an ellipsoid hyperdense lesion measuring approximately 22 x 13 mm was evident inside the left aerated middle turbinate. We performed an endoscopic partial turbinectomy under general anesthesia. The patient had no complaints during the subsequent 3-month follow-up. The pathologic diagnosis was osteoma.

Keywords: Turbinates; Osteoma; Nasal Surgical Procedures; Aged

OLGU SUNUMU

YAŞLI HASTADA NADİR GÖRÜLEN KONKA BÜLLOZA OSTEOMU OLGUSU

Öz

Baş boyun bölgesinde en sık mandibulada yerleşen osteomlar paranasal sinüsler içerisinde sırasıyla frontal, etmoid ve maksiller sinüslerde görülür. Nazal kavitede nadir görülen osteomların konka yerleşimi ise çok daha nadirdir. Bu çalışmamızda burun tıkanıklığı, yüzün sol tarafında ağrı ve baş ağrısı şikayetleri ile kliniğimize başvuran altmış altı yaşında bayan hasta sunulmuştur. Hastanın paranasal sinüs tomografisinde pnömatize sol orta konka ve içerisinde koronal, sagittal ve aksiyel kesitlerde görülen yaklaşık 22x13 mm boyutlarında, elipsoid hiperdens bir lezyon saptandı. Hastaya genel anestezi altında endoskopik parsiyel türbinektomi operasyonu yapıldı. Patolojik tanısı osteom olarak raporlanan hastada postoperatif 3 aylık takip süresi boyunca herhangi bir komplikasyon gelişmedi.

Anahtar sözcükler: Konka; osteom; Nazal cerrahi işlemler; İleri yaş

INTRODUCTION

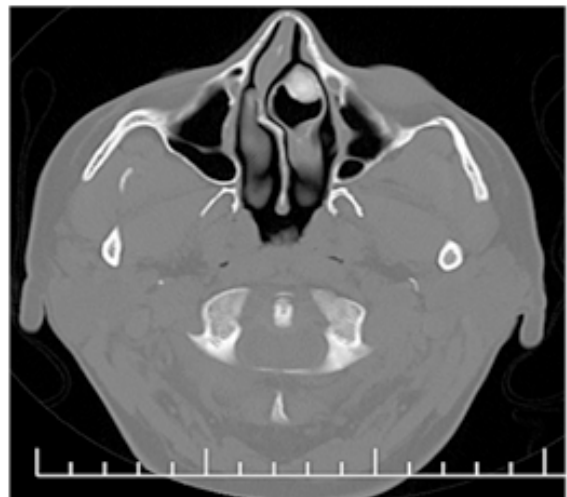
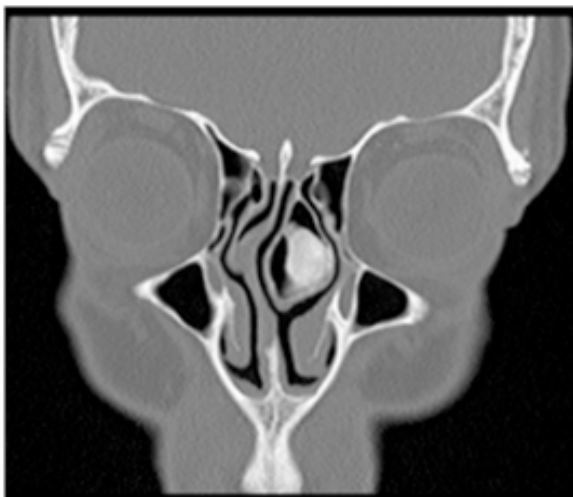
Osteomas are slow-growing benign tumors that originate from bone tissue. The most common location is the mandible. While its incidence is generally unknown, its prevalence has been found to be 1–3% in studies involving patients with osteoma detected via direct radiography and computed tomography (1). In the paranasal sinuses, it is most commonly located in the frontal sinus and then in the ethmoid and maxillary sinuses, respectively (2). Osteomas appear rarely in the nasal cavity and even more rarely in the turbinates. In a literature review, we identified 9 cases of concha settlements (3-11). Concha bullosa of the middle turbinate is the most common anatomical variation in the middle turbinate. Concha bullosa is similar to that of the paranasal sinuses, and is characterized by mucociliary clearance. It is thus sensitive to pathological formations such as paranasal sinuses. In the aforementioned literature review we only identified two previously reported cases of osteoma

in the concha bullosa, and herein we present a third case. The present case is the first report of concha bullosa osteoma in a geriatric patient.

CASE

A 66-year-old woman reported suffering from nasal obstruction and intermittent left-sided headaches and facial pain for the previous 1.5 years. She had no history of nasal surgery or trauma. In a nasal endoscopy examination her nasal mucosa appeared normal but hypertrophy of the left middle turbinate and a septal deviation to the right side were evident. Paranasal sinus computed tomography (CT) revealed a pneumatized left middle turbinate, and on coronal, sagittal, and axial CT sections an ellipsoid hyperdense lesion measuring approximately 22 x 13 mm was evident inside the left aerated middle turbinate (Figure 1). This bony lesion was situated in the anterior part of the left middle turbinate concha bullosa. The septum was deviated to the right.

Figure 1. (a) Coronal and (b) axial computed tomography scans of the paranasal sinuses showing a large, dense bony lesion inside the left aerated middle turbinate.





We performed an endoscopic partial turbinectomy under general anesthesia. After administering 2% xylocaine with adrenaline (1:100,000) via injection we performed a vertical incision on the anterior wall of the left middle turbinate, then created a plane between the bony lesion and the mucosal surface of the lateral lamella. After removal of the lateral lamella, the bony enlargement within the concha bullosa was separated from the inner surface of the medial lamella, preserving the middle turbinate's attachment to the lamina cribrosa. After removal of the lateral lamella we completely resected the bony lesion. The removed lesion measured approximately 22 x 12 x 10 mm (Figure 2). The patient had no complaints during the subsequent 3-month follow-up.

Figure 2. The bony lesion removed from the patient.



CONCLUSION

In recent years the rate of incidentally diagnosed osteoma has increased due to an increase in surgical interventions for paranasal sinuses, developments in endoscopic sinus surgery, increased radiological examinations for paranasal sinuses, and especially an increase in the utilization of CT. It has been reported that osteomas in patients aged 30–40 years were the most common frontal sinus paranasal sinuses. In a study of 1889 patients conducted from

2006 to 2008, Erdoğan et al. (12) reported that 55% of osteomas were located in the ethmoid sinuses, which is not concordant with numerous other reports (13). Although paranasal sinus osteomas are frequently detected in the ethmoid complex, the aerated middle turbinate is an exceptionally rare site of osteoma origin and only two such cases have previously been reported (7,11).

The etiology of osteoma is currently unknown. Most osteomas are sporadic, but they can also be observed as part of a syndrome (6). The standard diagnostic method for the diagnosis of osteomas is CT. In CT they are depicted as hyperdense markedly delineated lesions.

In general, a conservative approach is utilized in the treatment of osteomas. The recommended approach in elderly patients, especially those with no complaints, is to follow for changes in tumor size. In a case series conducted over 10 years, Halawi et al. (14) examined the growth patterns of osteomas and reported that the mean annual growth was approximately 0.117 mm. However, they did not identify any factors associated with this growth. In the present case we performed surgical intervention due to complaints of nasal obstruction and headache.

The main approach to symptomatic osteomas is surgical intervention, which can be performed externally or endoscopically. The choice of technique varies according to the size and location of the osteoma and its relationship with adjacent structures, but in recent years most reported cases have been treated endoscopically due to advances in endoscopic sinus surgery. In the present case the location and size of the tumor rendered it suitable for endoscopic excision, which was performed successfully. Where possible, an endoscopic approach is superior to an external approach due to a lack of scarring of the skin, reduced trauma and associated preservation of mucociliary clearance, less morbidity, and a shorter hospital stay (15).

Though solitary osteoma with concha bullosa is an extremely rare finding, it should be included in the differential diagnoses of rhinogenic headaches and/or unusual pathological formations in the pneumatized middle turbinate. An endoscopic approach is the preferable treatment option.

Histopathological diagnosis is particularly important for the differential diagnosis of osteogenic tumors, especially ossifying fibroma and fibrous dysplasia. The present case is the first report of middle concha bullosa osteoma in a geriatric patient.

REFERENCES

1. Earwaker J. Paranasal sinus osteomas: a review of 46 cases. *Skeletal Radiol* 1993;22:417-23. (PMID:8248815).
2. Maiuri F, Iaconetta G, Giamundo A, Stella L, Lamaida E. Fronto-ethmoidal and orbital osteomas with intracranial extension. Report of two cases. *J Neurosurg Sci* 1996;40:65-70. (PMID:8913963).
3. Whittet HB, Quiney RE. Middle turbinate osteoma: an unusual cause of nasal obstruction. *J Laryngol Otol* 1988;102(4):359-61. (PMID:3385330).
4. Lin C-J, Lin Y-S, Kang BH. Middle turbinate osteoma presenting with ipsilateral facial pain, epiphora, and nasal obstruction. *Otolaryngol Head Neck Surg* 2003;128(2):282-83. (PMID:12601328).
5. Viswanatha B. Middle turbinate osteoma. *Indian J Otolaryngol Head Neck Surg* 2008;60(3):266-8. (PMID:23120559).
6. Kutluhan A, Salviz M, Bozdemir K, Deger HM, Culha I, Ozveren MF. Middle turbinate osteoma extending into anterior cranial fossa. *Auris Nasus Larynx* 2009;36(6):702-04 (PMID:19419827).
7. Migirov L, Drendel M, Talmi YP. Osteoma in an aerated middle nasal turbinate. *Isr Med Assoc J* 2009;11(2):120. (PMID:19432044).
8. Daneshi A, Jalessi M, Heshmatzade-Bahzadi A. Middle turbinate osteoma. *Clin Exp Otorhinolaryngol* 2010;3(4):226-28. (PMID:21217965)
9. Yadav SP, Gulia JS, Hooda A, Khaowas AK. Giant osteoma of the middle turbinate: a case report. *Ear Nose Throat J* 2013;92(4-5):E10-12. (PMID:23599108).
10. Endo M, Tsukahara K, Nakamura K, Motohashi R, Suzuki M. A case of giant osteoma in the middle turbinate of a child. *Jpn Clin Med* 2014;5:15-8. (PMID:24940090).
11. Peric A, Cvoric M, Durdevic BV. Solitary osteoma within the cavity of a pneumatized middle turbinate. *Erciyes Med J* 2017;39(2):72-5.
12. Erdogan N, Demir U, Songu M, Ozenler NK, Uluc E, Dirim B. A prospective study of paranasal sinus osteomas in 1,889 cases: changing patterns of localization. *Laryngoscope* 2009;119:2355-9. (PMID:19780030).
13. Nielsen GP, Rosenberg AE. Update on bone forming tumors of the head and neck. *Head Neck Pathol* 2007;1(1):87-93. (PMID:20614288).
14. Halawi AM, Maley JE, Robinson RA, Swenson C, Graham SM. Craniofacial osteoma: Clinical presentation and patterns of growth. *Am J Rhinol Allergy* 2013;27:128-33. (PMID:23562202).
15. Castelnuovo P, Valentini V, Giovannetti F, Bignami M, Cassoni A, Iannetti G. Osteomas of the maxillofacial district: Endoscopic surgery versus open surgery. *J Craniofac Surg* 2008;19:1446-52. (PMID:19098531).