



Concha bullosa mucopyocele: Case report

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ABSTRACT

Concha bullosa is an anatomical version of the middle turbinate that is commonly found. Turbinates Pneumatization is unusual in the inferior and superior turbinates. Despite its typically asymptomatic nature, Concha bullosa can cause headaches, nasal congestion, and sinusitis.

Clinical entities such as mycetoma, pyocele, and polyps may be found in concha bullosa, but they may be rare. Mucocele may be produced by blocking the concha bullosa mucociliary transport, and concha bullosa mucopyocele can be triggered through mucocele infection. A patient suffering from middle turbinate mucopyocele contributing to unilateral nasal blockage and headache is presented in this case report.

Keywords: Concha bullosa, middle turbinate, mucopyocele, sinusitis

Introduction

Concha bullosa is defined as aeration of the middle turbinate.¹⁻³ Concha bullosa is detected incidentally, not by clinical findings, but by imaging techniques, particularly CT scanning. This term is mostly used to describe the middle turbinate. However, it is rarely seen in superior and inferior turbinate cases.⁴ In most cases, no treatment is required for concha bullosa. However, large concha bullosa can cause headache, obstruction of sinus drainage and nasal congestion (⁵). There is also a risk of mucocele development in concha bullosa. This condition is likely to occur if the drainage of the concha bullosa is blocked. Concha bullosa mucopyocele can be seen very rarely as a result of secondary infection of the mucocele.⁶

Case Report

A 63-year-old female patient was admitted to our ENT outpatient clinic with complaints of headache and left nasal obstruction. In her narrative, she stated that she had been examined several times by different branches other than ENT for the last 4 years due to headache, and she applied to the ENT polyclinic with the addition of nasal congestion to her complaints. In the anterior rhinoscopic examination of the

case, it was observed that the septum was deviated to the right. A mass extending to the anterior end of the inferior turbinate was detected in the left nasal cavity. The lesion suggesting a soft tissue mass completely filled the left nasal cavity and pushed the septum to the right (Figure 1).

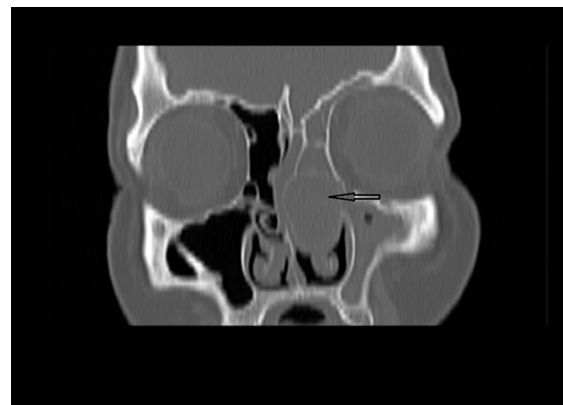


Figure 1: Image of the mass completely filling the left nasal cavity in the paranasal CT section.

These were detected on paranasal CT imaging. In addition, it was determined that the mass lesion was in contact with the left orbital medial wall and originated from the middle turbinate. The patient had no complaints regarding her eye. There were no history of trauma or previous surgery in the patient's anamnesis. As a result of clinical and

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radiological findings, surgery was planned with the preliminary diagnosis of left middle concha bullosa pyocele. Endoscopic concha bullosa resection was planned and the patient was operated under general anesthesia. Topical and infiltrative anesthesia with lidocaine was also performed for bleeding control. Using a zero-degree telescope, an incision was made with a size 15 scalpel on the part of the mass extending into the nasal meatus. Pus drained as soon as the incision was made. Concentrated pus was also drained. The lateral of the middle turbinate was removed, but the inferior part of the medial remnant of the middle turbinate was partially resected because the middle turbinate was greatly enlarged. Merocele tampon was placed after nasal cavity was rinsed with physiological saline. On the second day, the merocele tampon was removed postoperatively. Oral antibiotics and saline nasal lavage were given to the patient for 7 days. No complications developed in the follow-ups. She was followed up for 2 years without any complaints and relapses postoperatively and she was no longer followed up.

Discussion

Santorini first described middle turbinate pneumatization in 1793.⁷ Later, the name concha bullosa was determined by Zuckerkandl.⁸ Concha bullosa is mostly asymptomatic, but may be symptomatic due to its mass effect on the ostiomeatal complex and nasal septum.⁹ Complications may occur as a result of the enlargement of the concha bullosa pyocele and its expansion towards the surrounding tissues.¹⁰ Infections in the turbinate and those that become closed cavities can cause sinusitis, obstruction in the middle meatus and enlargement of the turbinate. The overgrowth of the middle turbinate can lead to septum thrust in pyocele formation. Similarly in our case, it was observed that the septum was pushed to the right due to the left concha bullosa mucopyocele. In our examination, a turbinate bone surrounding the concha pyocele was detected. In our case, the reasons for admission were headache and nasal congestion. Concha bullosa pyoceles are seen as a conchal mass in endoscopic and anterior rhinoscopy examinations. Paranasal CT method can be used to have detailed and supportive information about sinus and turbinate pathologies. It is the histopathological examination of masses taken with the help of endoscopy to make

the absolute diagnosis of concha bullosa pyoceles.¹¹ Discharge of infected material from the mass may be an important sign in the diagnosis of mucopyocele. Similarly, in the case we examined, dense infected contents were emptied during surgery. Rhinological, orbital and intracranial complications related to concha bullosa pyocele have been reported.¹² Different treatment methods can be performed endoscopically to avoid complications.¹³ In our case, the lateral part of the middle turbinate, which was greatly enlarged due to mucopyocele containing infected pus, were excised along with the inferior part.

Conclusion

Concha bullosa mucopyoceles are seen in very few people and are one of the rare diseases. Nasal congestion, headache and nasal mass may be suggestive for the diagnosis of this disease, but additional research is required. Paranasal sinus CT mucopyocele and nasal endoscopy may be helpful in diagnosis, but surgical excision is required for definitive diagnosis.

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