A Giant Mucocele of Nasal Septum: Case Report and Literature Review

Nazal Septumun Dev Mukoseli: Olgu Sunumu ve Literatür Taraması

Abstract

Mucoceles are benign, cystic and destructive lesions of the paranasal sinuses. They occur most commonly in the fronto-ethmoidal sinuses and extremely rare in nasal septum. To our knowledge, there was 5 case of mucocele of the nasal septum reported in the literature and we present a giant mucocele of the nasal septum case as 6th case. In addition, when a patient presents with nasal obstruction, nasal pain and headache, a mucocele of the nasal septum should be born in mind with respect to differential diagnosis. Also, clinicians should know that, mucoceles of the nasal septum are relatively benign entities compared to the other mucoceles of the nasal cavity and paranasal sinuses. They can be successfully and safely treated with marsupialization or total excision, if they are early diagnosed.

Keywords

Mucocele; Nasal Septum; Surgery; Pneumatocele

Özet


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Mukosel; Nazal Septum; Cerrahi; Pnömatosel

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Introduction
Mucoceles are benign, expansile chronic cystic lesions of the paranasal sinuses that can define pathologically as encapsulated, mucoid filled masses. Rarely, they have been occurred in unusual localization of the craniofacial structures [1-3]. Mucocele of the nasal septum (MSN) is extremely rare and first reported in 2002 by Gall and Witterick [4] and 5 cases have been reported so far in the literature [4-8]. The aim of the present paper is to report, to our knowledge, sixth case of a giant MSN developed from a septal pneumatocele and to review the literature regarding etiology, clinical implications and management.

Case Report
A 34-year-old male presented with 6-months history of bilateral nasal obstruction, rhinorrhea and nasal discharge. Clinical examination by anterior rhinoscopy revealed a septal swelling. Nasoendoscopy showed that the submucosal septal swelling obstructed nasal cavity bilaterally and it was more prominent on the left side. Septal mucosa was intact on both sides (Figure 1). He had a history of rhinoplasty without septoplasty 15 years ago. Computerized tomography (CT) scan demonstrated a mass with soft tissue density with smooth clear-cut margins isodense with brain tissue (Figure 2). Eighteen cc mucoid fluid from the cyst drained via syringe for histopathologic examination. Mucous cell block with sparse polymorphonuclear leukocytes were found in the sample, and these findings was compatible with mucocele.

An operation was performed under local anesthesia starting with right hemitransfixion incision similar to septoplasty. Anterior wall of the pneumatocele has been made visible with bilateral mucoperiostal elevation. Although, lateral walls were eroded by mucocele, other parts of the bone wall of the expanded pneumatocele were intact (superior, inferior, anterior and posterior parts). The giant mucocele and pneumatocele were dissected from septal mucosa and successfully removed by endoscopy approach without marsupialization and without external approach (Figure 3). No mucosal damage is seen after the procedure. Bilateral internal nasal splint was placed in the nasal cavity and supported by nasal pack. Nasal pack was taken after two and plates were taken after seven days. The lesion was diagnosed as mucocele. During the 6-month-follow-up, the functional and cosmetic results were excellent (Figure 4).

Discussion
Paranasal mucoceles predominantly develop in the frontal sinuses (60%), followed in frequency by the ethmoidal, maxillary, and sphenoid sinuses, respectively. Some less common and unusual sites for mucoceles have been reported such as orbital floor, root of the nose, pterygomaxillary space and middle tur-
bine in a concha bullosa[1-3]. MSNs are the extremely rare mucoceles and first reported in 2002 by Gall and Witterick [4]. In the literature 5 cases have been reported so far (Table 1) [4-8]. The etiologies are not well known and obstruction of the os- tum, facial traumas, previous nasal surgery, recurrent infec- tions and allergies are cause for sinus mucoceles [1-3]. Traumas and pneumatocoeles were seen as most common etiologic factors for MSN. Trauma can be surgical, such as nasal surgery with or without septoplasty and non-surgical such as foreign body. The common feature of surgeries was that they were performed many years ago [15-45] years [4-8].

Paranasal mucoceles predominantly develop in the frontal sinu- es. Paranasal mucoceles are benign lesions with the potential for adjacent bony remodeling and resorption. They have a slow growing pattern but they can destroy neighboring structures by compression and expansion. They can take many years for them to become symptomatic [1-3]. MSN tend to occur in the superior region of the septum especially in midline. Furthermore, they tend to cause no symptoms until its diameter reaches about 20-40 mm, although occasionally they cause headache, nasal pain and obstruction. MSN are usually diagnosed before destroying the surrounding tissues, due to the relatively early symptomatic because of anatomic localization. CT and Magnetic Resonance Image scan shows a round mass on nasal septum with or without pneumatocoele [4-8].

All reported cases have been successfully treated via surgery with endoscopical approach. Gall et al, Hermann et al and Lei et al [4-6] performed partial excision and marsupialization in their cases. Yilmaz et al and Taşkın et al [7,8] reported that MSN totally excised. There was no reported complication or recurrence after treatment in literature for MSN. Similarly, we endoscopically dissected the MSN from the wall of pneumatocoele and septal mucosa and the lesion successfully removed totally and performed septoplasty. During the 6-month-follow-up, the functional and cosmetic results were excellent.

In conclusion, MSN is extremely rare entity. To our knowledge, there was 5 MSN cases reported in the literature and we present a giant MSN case as 6th case. In addition, when a patient presents with nasal obstruction, nasal pain and headache, a MSN should be born in mind with respect to differential diagnosis. Also, clinicians should know that, MSNs are relatively benign mucoceles of the nasal cavity. They can be successfully and safely treated with marsupialization or total excision, if they were early diagnosed.

Competing interests
The authors declare that they have no competing interests.

References