



A rare cause of maxillary sinus masses: gossypiboma

Maksiller sinüs kitlelerinin nadir bir nedeni: Gossypibom

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Postoperatively retained sponges used in operations, referred to as gossypibomas are rare foreign bodies discovered in the maxillary sinus. The symptoms of foreign bodies in the maxillary sinus appear at later stages with the most frequent complaints, indicating chronic sinusitis such as unilateral mucopurulent nasal discharge, nasal odor and congestion. In this article, we presented a 77-year-old male case of maxillary sinus gossypiboma which was left there 40 years ago, without any symptoms except headache. Preoperative paranasal sinus computed tomography suggested the differential diagnosis of sinonasal tumors, and inflammatory pathologies. In this case report, foreign bodies of the maxillary sinus were discussed.

Key Words: Foreign bodies; gossypiboma; paranasal sinus neoplasms; paranasal sinuses.

Ameliyatlarda kullanılan gossypibom olarak bilinen ve ameliyat sonrasında çıkarılan süngerler, maksiller sinüste keşfedilen nadir görülen yabancı cisimlerdir. Maksiller sinüsteki yabancı cisim semptomları tek taraflı mukopürülan burun akıntısı, burunda kötü koku ve konjesyon gibi kronik sinüziti işaret eden en sık görülen yakınmalar ile birlikte daha sonraki evrelerde ortaya çıkar. Bu makalede baş ağrısı haricinde başka bir semptomu olmayan 40 yıl önce bırakılmış maksiller sinüs gossypibomu olan 77 yaşındaki erkek bir olgu sunuldu. Ameliyat öncesinde çekilen paranasal sinüs bilgisayarlı tomografide sinonazal tümörlerin ve enflamatuvar patolojilerin ayırıcı tanısı görüldü. Bu olgu sunumunda maksiller sinüsün yabancı cisimleri tartışıldı.

Anahtar Sözcükler: Yabancı cisimler; gossypibom; paranasal sinüs tümörleri; paranasal sinüsler.

Foreign bodies in the maxillary sinus are occasionally encountered in adults in ear nose throat (ENT) practice and are mostly caused by injury in an accident, trauma or dental procedures.^[1-7] Teeth, dental roots, dental implants, rubber erasers, paper, beans, safety pins, nuts, coins, bullets and beads are the most frequent foreign bodies reported in the literature.^[6,7] Postoperatively retained sponges used in operations, referred to as gossypibomas, are rare foreign bodies discovered in the maxillary sinus. In this clinical report, a case of maxillary sinus gossypiboma is presented and the clinical and radiological features of maxillary sinus foreign bodies are discussed.

CASE REPORT

A 77-year-old male with the complaint of left-sided headache persisting for six years was referred to our clinic from the neurology department. In his history, it was learnt that he had lost his left eye due to a burn injury in childhood and had undergone orbital exenteration with implantation of a prosthesis 40 years ago. On physical examination, a polypoid mass was observed which completely filled the left nasal cavity. It extended up to the lower level of the inferior turbinate. He had no complaints of nasal obstruction, purulent discharge or epistaxis.

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Other findings were unremarkable. Paranasal sinus computed tomography (CT) revealed a soft tissue structure which completely filled the left maxillary sinus, including osseous components, of approximately 40 mm in size. The mass was seen to have destroyed the medial wall of the left maxillary sinus and showed extension to the nasal cavity. Furthermore, heterogeneity with thickening of the lateral wall of the left maxillary sinus was observed (Figure 1). These findings suggested differential diagnosis of sinonasal tumors and inflammatory pathologies. Under local anesthesia, a punch biopsy was performed and the pathological examination revealed chronic hyperplastic rhinosinusitis. The patient underwent a left endoscopic sinus surgery. Following excision of the polypoid tissues at the inferior portion of the left nasal cavity, a firm mass was encountered in the maxillary sinus. It was observed to have extended to the nasal cavity by destroying the medial maxillary wall and the mass was covered with brown-black rhinoliths. When the mass that had adhered to the surrounding tissues was dissected and removed, it was seen that it was a gauze pad which was thought to have been left there years ago (Figure 2). These pathological tissues in the maxillary sinus and the nasal cavity were removed and the remainder of the operation was completed uneventfully. The final histopathology report was that of a foreign body with rhinolithiasis and chronic hyperplastic rhinosinusitis.



Figure 1. Coronal computed tomography scan section showing a soft tissue structure completely filling the left maxillary sinus, destroying its medial wall and extending into the nasal cavity.

DISCUSSION

Gossypibomas are most frequently discovered in the abdomen. However, occurrences in the thorax, extremities, central nervous system and breast have also been reported.^[8-11] The presence of such a foreign body in the maxillary sinus is very rare, and to our knowledge, this is the second case reported in the literature. Tingsgaard et al.^[12] reported a case of chronic maxillary sinusitis due to sponges left behind from an orbital operation for 'blowout fracture'.

Rhinolith formation can develop around a foreign body that remains in situ for many years. Rhinoliths are thought to be formed by the gradual accretion of calcium and mineral salts around an intranasal nidus (foreign body) and have the appearance of grayish irregular masses. Long-standing gossypibomas may not contain gas bubbles as they usually do, and can be seen with surrounding calcifications in the presence of rhinoliths. Therefore, the foreign body in the maxillary sinus in our case had an appearance resembling a malignant sinonasal mass on CT images. The symptoms of foreign bodies in the maxillary sinus appear at later stages and the most frequent complaints indicative of chronic sinusitis such as unilateral mucopurulent nasal discharge, nasal odor and congestion.^[13] Other rare symptoms including epistaxis and facial cellulitis have also



Figure 2. Foreign body removed from the left maxillary sinus.

been reported.^[14] In the presence of a long-standing foreign body, several complications including erosion into, or infections of surrounding structures may also occur.

This case is unusual and interesting for several reasons. To the best of our knowledge, this retained sponge is the first case of a foreign body having been left in the maxillary sinus for such a long duration as 40 years. Although the foreign body had almost completely filled the maxillary sinus, our patient had neither complaints related to nasal obstruction nor nasal discharge, with the exception of a headache in the last few years. Remarkably, despite the increased risk of development of complications, the foreign body had caused no symptoms for many years. The unusual malignant sinonasal mass appearance of such a gossypiboma on CT also makes this case exclusive. Although foreign bodies of the paranasal sinuses in adults are uncommon, doctors can be faced with this problem. This case also emphasizes the importance of history-taking and reviewing previous surgeries, especially in geriatric patients. The results of the clinical and radiological examinations may be similar to those of benign or malignant nasal lesions, as with the observation of destruction of the walls of the sinuses in our case.

In conclusion, this case underlines the importance of foreign body in the broad differential diagnosis of masses in the paranasal sinus and alerts clinicians to be aware of their possible existence.

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