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ENTCase

MULTIPLE FOREIGN BODIES IN PAROTID GLAND

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Özet

PAROTİS BEZİNDE BİRDEN FAZLA YABANCI CİSİM

Rekürren akut parotitis olguları, total rezolüzyon olmadığı vakit kronik parotitis ile sonuçlanır. Akut parotitisin en sık sebepleri viral ve bakteriyel enfeksiyonlardır. Literatürde, parotiste yabancı cisimlerin sebep olduğu kronik inflamasyon olguları çok azdır. Cerrahi ile yabancı cisim çıkartılması tek tedavi modalitesidir, ve fasiyal sinire veya Stensen kanalına zarar vermemek için özen göstermek gerekir. Biz burada, -muhtemelen- 20 yıl önce geçirdiği trafik kazası sonrasında parotis bezine yabancı cisimler yerleşmiş, kronik sialoadeniti olan, 63 yaşında bir bayan hastayı sunuyoruz.

Anahtar kelimeler: Kronik sialoadenit, Yabancı cisim, Parotis bezi, Plastic, Cam

Abstract

MULTIPLE FOREIGN BODIES IN PAROTID GLAND

Recurrent acute parotitis without total resolution is called chronic parotitis. Acute parotitis is usually caused by viral or bacterial infection. There have been few cases reported with foreign body insertion to parotid gland causing chronic inflammation. Surgery and removal of the foreign body is the only treatment, care must be taken not to cause any facial nerve and Stensen's duct injuries. We present a rare case of chronic sialoadenitis as a consequence of multiple foreign bodies in a 63 year-old female which had most probably entered through the skin during a traffic accident 20 years ago.

Keywords: Chronic sialoadenitis, Foreign Body, Parotid Gland, Plastic, Glass

Introduction

Chronic sialoadenitis is a disease of salivary glands with course of inflammation and pain episodes, generally caused by decreased salivary flow or stasis. It is mostly encountered in parotid gland [1]. Infective or obstructive sialoadenitis may present with pain and swelling of the affected salivary gland. Decreased salivary flow or stasis causes obstructive sialoadenitis. Stones obstructing salivary duct, strictures, tumors or rarely foreign bodies can cause stasis, which induces formation of obstructive sialoadenitis [2]. Sialolithiasis forms 66% of obstructive salivary diseases [3].

Foreign bodies in parotid gland causing obstructive sialoadenitis are extremely rare. Only a few cases have been reported with foreign bodies in the parotid gland [4]. Most of them enter the gland via Stensen's duct. Penetration through the skin is very seldom. Here we report a case with multiple foreign bodies in parotid gland which had most probably entered through the skin during a traffic accident 20 years ago.

Case Report

A 63 year old female patient presented to our outpatient clinic with swelling about 4x4cm in left cheek in parotid gland location. Patient had no chronic diseases and no history of smoking but had a traffic accident about 20 years ago which had injured left side of her face and had huge laceration involving parotid gland. Her physical

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examination showed that overlying skin was erythematous and tender. Oral cavity inspection revealed the presence of purulent secretion from the orifice of the parotid duct, after gentle pressure over the gland (Figure 1).

Figure 1

Purulent secretion from the orifice of the parotid duct, after gentle pressure over the gland.

Patient was hospitalized, treated with intravenous antibiotics and hydration. Parotid ultrasonography showed dilated ductus within 8,9 mm diameter and a sialolithiasis with acoustic shadow of 9 mm distally. Patient was treated with metronidazole and ceftriaxone. After acute phase of the inflammation, surgical excision of the stone was offered to the patient but patient did not accept. About 3 months later, patient again presented to our clinic with same complaints and again was treated with intravenous antibiotics. Patient again did not agree with the surgery, and after she was discharged she was lost to follow-up. A year after the last attendance, patient presented to our clinic with trismus, pain and 5x5cm erythematous, fluctuant swelling (Figure 2).

Figure 2

5x5 cm erythematous, fluctuant swelling on the cheek.

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By bimanual palpation along the course of the duct, the stone was palpated while there was not any purulent discharge from the Stensen's duct. An ultrasonography showed higher vascularisation in left parotid gland which was enlarged and inflamed with dilated ductus, and anterosuperiorly to ductus, an 11 mm stone with acoustic shadow was seen about 5 mm distant from skin. Avascular, organised abscesses with fibrin precipitate of 38x20 mm and 21x16 mm size were also noted. Laboratory tests showed leucocytosis (11,510/µl) with neutrophils 75%, kidney and liver function tests were normal, sedimentation was 69 mm/h, C-reactive protein was 41,50 mg/L. Transcutaneous puncture of the swelling was performed under ultrasonography and about 10-15 ml of frank pus was drained. Pus was sent for culture. Patient was already put on ceftriaxone and metronidazole. Culture results showed Staphylococcus aureus.

After taking consent of the patient, under general anesthesia, gland orifice was incised and using a probe, duct was dilated where multiple pieces of glass were removed gently (Figure 3).

Figure 3

Multiple pieces of glass, excised from the orifice of the parotid gland.

Post-operatively, patient was given antibiotics for 3 days. After 3-days, abscess was reformed again. A CT scan showed a foreign body approximately 5mm near the skin. After 2 days, under general anesthesia, a mini face-lift incision was made, and the skin flap was elevated under ultrasonography searching for the mass with high acoustic shadow (Figure 4).

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Figure 4
Intraoperative ultrasonography showed the mass with high acoustic shadow.

After elevation of the superficial musculoaponeurotic system (SMAS), the foreign body was extracted (Figure 5).

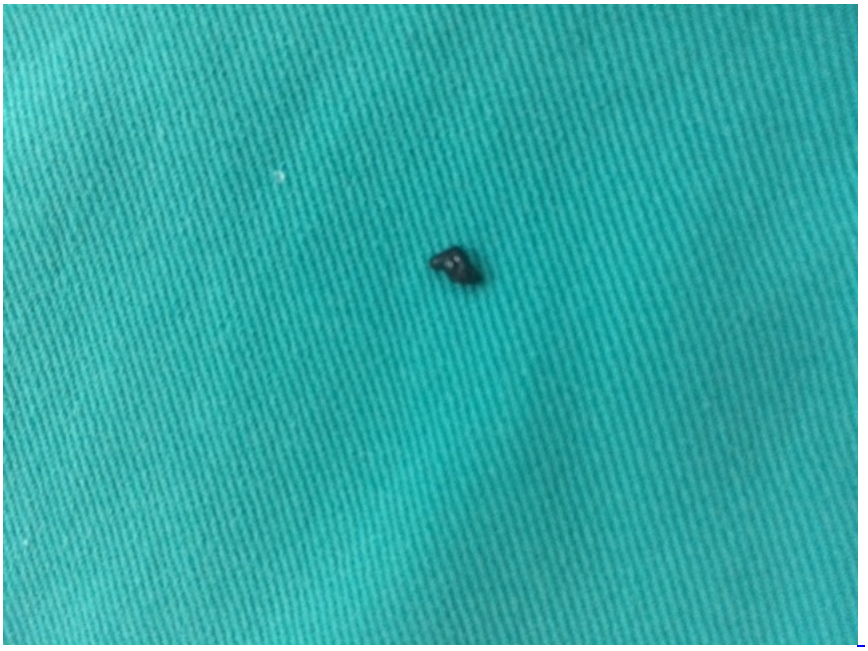

Figure 5
Extracted foreign body.

Patient had no complaints 3 months postoperatively and no foreign body or mass was seen in postoperative ultrasonography.

Discussion

Chronic inflammation of salivary glands is caused by chronic bacterial infection as a result of incomplete treatment

or mistreatment of an acute disease. The disease frequently affects the parotid glands. Common pathogens are Staphylococcus aureus, Streptococcus viridans, St. pneumoniae, St. pyogenes and Escherichia coli. Streptococcus is the most commonly isolated agent in recurrent cases [5]. Viral and granulomatous and non-infectious parotitis can also be seen. Drugs such as diuretics, atropine and some antidepressants provoke inflammation by reducing salivary flow. Reduced salivary secretion and sialectasis are the most common findings of chronic inflammation [6]. Dehydration, malnutrition, chronic diseases, poor oral hygiene, and trauma increase the risk of parotitis [7].

Apart from stones, obstructive sialoadenitis may be due to calculi, mucinous lesions, tumors or anatomic variations or malformations of the duct [8], which cause stenosis of the duct. Foreign bodies are also a cause for obstructive sialoadenitis. Few cases have been reported with foreign bodies in the salivary glands, which include wood, grass, feather, pencil tip, toothbrush, fishbone, hair and finger nail [5]. Foreign bodies generally enter the parotid gland via Stensen's duct, while penetration through the skin is seldomly seen [9]. The first case of foreign body in parotid gland was published in 1958 [10]. Penetrating accidents like gunshot and bullet in parotid gland have also been reported [11]. Foreign bodies left untreated or nondiagnosed cause complications that include prolonged or recurrent inflammation, abscess formation, cutaneous fistula, recurrent trismus [5].

Dilation of the salivary ducts as a consequence of sialolithiasis/foreign bodies can be easily diagnosed with ultrasonography. Ultrasonography is noninvasive and easy to apply for differantiation of glandular and extraglandular lesions, as well as cystic and solid lesions. Ultrasonography is also useful for biopsies and abscess drainage [12]. In our case ultrasonography showed the plastic body but was insufficent for the glass compartments. CT scan is an alternative option for diagnosing foreign bodies in salivary glands.

Drainage of an abscess of the parotid gland should be performed very carefully in order to avoid any trauma to the facial nerve. Superficial parotidectomy may be an ultimate option for cure, but taking the complications of this method into account, less invasive and gland sparing methods are preferred [13]. Sialendoscopy is used in removal of lithiasis but there has been no report of it being used for foreign bodies [8]. We used external approach to parotid gland to reach the main foreign body and intraoral approach via Stensen's duct to reach the glass components which could not be seen in ultrasonography but were palpated bimanually.

This case is interesting not only because an obstructive foreign body in parotid gland is rare, but also it remind us how patient history is important and a foreign body may cause an obstructive sialoadenitis 20 years after penetrating the parotid gland.

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