

A Peck on the Cheek – A Case Report

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Abstract: Various foreign bodies are encountered to be embedded in the soft tissues in maxillofacial region which include tooth fragments, root canal filling material, burs, sewing needles, broken instruments, wooden piece, glass piece, tip of tooth brush, fish bone, iron pieces, stone, surgical gauze. These foreign bodies if not removed immediately get infected and might come out through sinus opening or may remain in the soft tissue and go unnoticed, resulting later with other complications. These foreign bodies are generally symptomatic and show signs of inflammation, pain and purulent discharge. Here is a case report of a patient presenting with draining sinus from left cheek region which on surgical exposure found to be a glass piece which got pierced into the left cheek and went unnoticed by the patient.

Keywords: Glass piece, foreign body, wound, fistula

INTRODUCTION

Cheek is such a part in the body which is known for its esthetic as well as functional importance. Cheek region houses many important structures of the face such as nerves, vessels, salivary glands, salivary ducts, muscles etc. Any injury at this area would lead to major damages like palsy or hemorrhage [3]. However the most common causes for injuries in this region are RTA, assault, sport injuries, gunshot injuries etc [1, 2,6].

Foreign body in this region is of a rare entity. Most commonly a foreign body in and around the oral cavity would be the dental restorative instruments, broken needle, dislodged crown, staple pins, beads rarely very hard food particles like fish bone etc[3]. Glass piece in the cheek region could be a rare. However if the patient is unaware of the presence of a foreign body this could be left unidentified till the symptoms of infection are exhibited. In our case the foreign body was embedded in the cheek which was unnoticed and delayed by the patient which led to the formation of fistulous tract which was presented with pus discharge through sinus one month after the injury.

CASE REPORT

A 27 year old male patient came to the department of oral and maxillofacial surgery with a complaint of pus discharge in the left cheek region. He gave a history of interpersonal violence four weeks back during which he was thrown on to the ground resulting in sharp injuries on his face. There was bleeding from the injuries which were sutured at a small private hospital. Presently he came with a small painful

sinus opening with pus seen on the left cheek. The patient was healthy with vitals within normal limits. On extra oral examination there is 2 X 2cm size solitary sinus opening seen one inch away from the angle of mouth (fig-1). There are healed scars seen at the chin and below the sinus opening which are healed. The left submandibular lymph nodes were tender on palpation. Intra-oral examination buccal mucosa shows no abnormality. No injury noted to the stensons duct. No injury noticed to any nerves or blood vessels as there is no paraesthesia or anesthesia. Orthopantomograph did not reveal any dental or periodontal foci of infection as the cause of sinus (fig-2). Haematological investigations were normal. Patient was planned for surgical exploration of sinus tract under local anesthesia. After adequate anesthesia an incision is given around the sinus opening with two horizontal incisions given on either side of first incision (fig-3). The sinus along with fistulous tract was dissected. During fistulous tract removal a hard object is felt which on careful dissection, to our surprise found to be a glass piece (fig-4, 5). It was carefully separated and removed along with fistulous tract (fig-7). After

removing foreign body, the wound was explored for any other remnant pieces and proper debridement was performed to remove unhealthy granulation tissue. Sutures were placed [fig.6]. Patient was discharged with post-operative antibiotics prescribed. The postoperative

sequel was uneventful and wound healed within period of one week.

Disclosure statements

The authors report no conflicts of interest related to the study.



Fig-1: Patient with extraoral sinus opening on left cheek region.



Fig-2: OPG shows slight radio-opacity on the left ramus region.



Fig-3: Incision for excision of sinus along with fistulous tract.



Fig-4 : Exposure of the glass piece.



Fig-5: Removal of glass piece



Fig-6: Closure of the wound

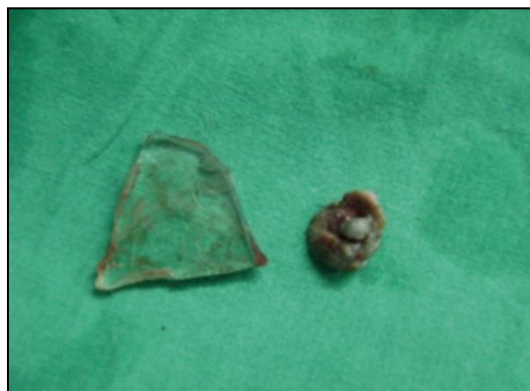


Fig-7: Glass piece and Sinus tract

DISCUSSION

Identifying the presence and location of any foreign body after traumatic injuries is important. Based on the complaints and history of the patient careful and thorough clinical examination has to be performed so that any presence of foreign body is not missed. As over-retained foreign body presents later with several complications. In the above case, patient had injury to the cheek presenting with draining sinus and pain. Cheek contains many important anatomic structures present in and around its vicinity. Foreign body if remains unnoticed will lead to formation of sinus or fistulous tract, or would develop into abscess which could lead into severe infection resulting septicemia [3,9]. Unnoticed foreign body in cheek would lead to the symptoms like pain, swelling etc [1,3]. If there are no symptoms to the patient and remains longstanding, sometimes the position of this foreign body would change due to constant masticatory movements which can displace it to more critical areas which include proximity to facial nerve, ducts, and blood vessels. Therefore identifying remains the most significant part of diagnosis of the foreign body [3]. Fistula formation due to a foreign body is rare but not unseen. This develops due to tissue changes along the path of the injury and it depends on the duration from the time of injury, as per our knowledge the longer the injury the more is fibrous tissue that develops which might show radiographic changes. General fact that a glass piece could be radio opaque or radiolucent and it depends on the radio density of the type of glass and the tissue reaction around embedded glass piece [8, 3,10]. However in our case even though there was a fistula which did not show any kind of radiological changes. On palpation we were able to identify that it could be a hard object. The fistulous tract could be formed due to the penetration of the glass piece through skin and subcutaneous tissue. For long standing wounds where there is a question of presence of any foreign body, appropriate imaging modalities are available such as radiography, computed tomography (CT), and ultrasonography, depending on the size and type of foreign body [3- 5, 11]. Imaging is not necessary if the foreign body is adequately visible for removal. Plain films can be clinically beneficial in locating glass foreign bodies in deep wounds with or without exploration. In our case it was identified as a glass piece which is not appreciable on OPG. Tooth, stone, metal and glass foreign bodies are said to be seen on CT and CBCT scans made at any size in air. CBCT scan was a more effective to visualize foreign bodies compared to conventional CT. Foreign bodies of 0.5 mm size like metal, stone, glass, graphite and teeth can be detected by in muscle tissue and adjacent bone[12]. Although CT is more sensitive than radiography, the increased cost limits CT. Ultrasonography can help determine the depth, size, and shape of the foreign body and its relation with anatomic structures such as bones, tendons, blood vessels or joints. Most of the foreign bodies are surrounded by a hypo echogenic area

representing inflammation. Localizing some foreign bodies with multiple views, metallic markers, or needles placed closer to them are easier. MRI is said to be the last option as it is rarely used for foreign body detection during the first patient visit. MRI provides complete information regarding tissue inflammatory reactions, secondary tissue reactions, osteoblastic or osteolytic changes and which helps in determining the presence and location of the foreign body. The use of MRI is limited as it is expensive and lack of availability in some areas relative to other imaging modalities. MRI is unnecessary for routine foreign body detection but should be considered in cases of longstanding wounds or focal infections with unknown cause in which the presence of a foreign body is being considered [13]. Surgical exploration and removal remains the only treatment but sometimes due the colorless character of glass piece and the granulation tissue formed around it would mask the presence of glass and results it increased surgical difficulty in retrieving it. Therefore it is very important to obtain the proper history and clinical assessment of the region. Diagnostic aids such as ultrasound can be of help and has been proven wise to identify the foreign body [3].

CONCLUSION

Facial injuries due to any trauma should be carefully evaluated for early and timely detection of any presence of foreign body along with the help of imaging modalities to avoid delayed complications.

Compliance with ethical standards

Source of funding

The study was self-funded by the authors and there was no external funding from any organization, for this study.

Conflict of interest

The authors declare that they have no conflict of interest.

Ethical approval

The procedure performed in the case report involving human participant was in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent

Informed consent was obtained from the individual participant included in the case report. Additional informed consent was obtained from the individual participant for whom identifying information is included in this article.

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