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ENT

PENETRATING FACIAL TRAUMA: A CASE REPORT

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ABSTRACT Penetrating injuries of face are very rare. They are sometimes life-threatening. Causes can be diverse and the prognosis depends on the region of the face involved and also the type of object causing the injury. Most of the cases involve surrounding one or more vital structures hence complicating the situation. But here we present a case of penetrating trauma of face in a 9 year old girl caused by a bamboo stick who fortunately had no complications.

KEYWORDS: Penetrating trauma, face, bamboo stick

INTRODUCTION:

Penetrating trauma of face is a rare condition. It can cause significant morbidity and even mortality as many vital structures and dangerous areas are present tightly packed in the face. These injuries are of two types – high energy and low energy. High energy trauma is caused by high velocity objects with more kinetic energy such as bullets and low energy injuries include knife stabbings. Here we present a case of a 9 year old girl with penetrating trauma to face caused by a bamboo stick accidentally while playing which is a low energy injury. There were no complications despite involving region near to important structures.

CASE REPORT:

A 9 year old girl presented to emergency with complaint of accidental penetration of a bamboo stick into the face on right side while playing. It was seen entering near pre-auricular area and exiting near the angle of mandible (figure 1). Severe pain was present. Her vitals were stable. No active bleeding was seen. Diffuse swelling with slight bluish discoloration noticed. Deep laceration of 2cm x 1cm was present on right angle of mandible with healthy margins. Facial movements were intact. Mild tenderness and local rise of temperature were present. Mouth opening was restricted.





Figure 1 (Patient presentation)

Figure 2 (After surgery)

CT scan was done to rule out any vascular and/or muscular injuries. It didn't reveal injury to any major vessel and showed that the object was passing through superficial plane to parotid and deep to subcutaneous tissue. A meticulous exploration under general anaesthesia was done and the foreign body was removed through its course of penetration (figure 2). Intra and postoperative periods were uneventful. No facial weakness noted during 3 days after surgery. Patient was discharged in a stable condition. Follow-up after 2 weeks showed well-healed wound with no complication.

DISCUSSION:

Penetrating trauma is more an emergency situation. Consequences mostly depend on the anatomical structures affected, the depth of penetration, impact direction and resistance of tissues.² Massive bleeding can occur from damaged blood vessels. It should also be kept in mind that foreign body can tampon the damaged vessel and removal of it can initiate massive bleed. Hence imaging is required to evaluate surrounding vascular system.³ Also CT is required to identify the trajectory of the object and its relationship to important anatomical structures.⁴ In our case, CT scan reported no major vessel involvement.

Many intraoperative challenges do exist when vital structures are damaged. But in our case, fortunately no vital structure was involved. The facial nerve was passing nearby but was not involved. For patients with a GCS score of more than 9, rate of complications was less than 10%. In our case, score was 15 and also no complications were present.

CONCLUSION:

This was a rare presentation where there was a penetrating facial trauma involving a significant area but without any single complication.

CONFLICTS OF INTEREST: None ACKNOWLEDGEMENTS:

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REFERENCES:

- Chen AY, Stewart MG, Raup G: Penetrating injuries of the face. Otolaryngol Head Neck Surg 1996;115:464-470.
- Aneta Neskoromna-Jedrzejczak, Katarzyna Bogusiak, Aleksander Przygonski, Boguslaw Antoszewski. Penetrating trauma of the face and facial skeleton – a case series of six patients. POL PRZEGL CHIR, 2017: 89 (1), 50-60.
- Carter LM, Wales CJ, Varley I, Telfer MR. Penetrating facial injury from angle grinder use: management and prevention. Head Face Medicine 2008;4:1.
 Paulo Roberto Dominguete, Bruno Figueiredo Matos, Tufi Neder Meyer, Lucinei
- Paulo Roberto Dominguete, Bruno Figueiredo Matos, Tufi Neder Meyer, Lucinei Roberto Oliveira. Jael syndrome: removal of a knife blade impacted in the maxillofacial region under local anaesthesia. BMJ Case Rep 2013. doi:10.1136/bcr-2013-008839.
- Zafonte RD, Wood DL, Harrison-Felix CL, Millis SR, Valena NV: Severe Penetrating Head Injury: A Study of Outcomes. Arch Phys Med Rehabil. 2001;82:306-310.