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RESEARCH ARTICLE

FRONTAL BONE FRACTURE – CASE REPORT

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ABSTRACT

Frontal bone fractures are rare and occur in only 5-12% of maxillofacial traumas and have a relatively low incidence if compared to the remaining types of fracture involving the cranio-maxillofacial region. The fact that the frontal bone is more protected from traumatic events by both the prominence of the nasal pyramid which protects the naso-orbital region and the frontal bone higher resistance to mechanical impacts could attribute to this.

INTRODUCTION

Frontal bone fractures are rare and occur in only 5-12% of maxillofacial traumas and have a relatively low incidence if compared to the remaining types of fracture involving the cranio-maxillofacial region. The fact that the frontal bone is more protected from traumatic events by both the prominence of the nasal pyramid which protects the naso-orbital region and the frontal bone higher resistance to mechanical impacts could attribute to this. Frontal bone fractures offer significant challenges to surgeons and the treatment paradigm has been debated for many years. Acute concerns include protection of intracranial structures, identification of associated injuries and control of cerebrospinal fluid (CSF) leakage. The aesthetic forehead contour is also an important consideration in repair. Past surgical modalities that removed the anterior bony frontal surface left life-long disfiguring defects and have been largely replaced by techniques that leave a smooth contour without visible scars. The frontal sinus is in close proximity to several intracranial structures. The posterior wall forms the anterior wall of the cranial vault and the floor of the frontal sinus contributes to the anterior superior roof of the orbit (Stanley, 1998).

CASE REPORT

A 42 year old male patient visited the department of oral and maxillofacial surgery in the month of January 2018 having an allied history of RTA.

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A CT scan was done for the patient and the reports suggested frontal bone fracture involving outer table. The patient had depression over the forehead and was concerned about the cosmetics. The patient was admitted in hospital and after neuro clearance the patient was taken up for surgery. Patient was intubated through oral cavity. Bicoronal incision was marked using methylene blue. Local anesthesia was infiltrated. A running sutures were given around 1 cm posterior from the marked incision line. The incision was taken and flap was raised to expose the fracture site. Small bony fragments were removed. The frontal sinus lining was removed using curettes and irrigated with saline and betadine. Surgicel (Abgel) was placed in the sinus cavity to block the naso frontal sinus. Titanium mesh was placed and adapted according to the contour and was fixed using 4 mm screws. The flap was then placed back and the suturing was done in layers with 4-0 vicryl and 3-0 ethilon.

RESULTS

The wound healed very well without noticeable scar. Patient was happy and satisfied with the result.

DISCUSSION

The peculiarity of frontal bone fractures is that a wrong choice or inadequate treatment could not only encompass functional or aesthetical problems but also more dangerous complications such as the risk of infections like meningitis, mucocele, encephalitis and cerebral abscess. Hence the necessity to

recognize precociously and rightly the type of fracture and the intervening involvement of the adjacent structures in order to perform a proper surgical treatment according to the specific case, thus reducing the risk of infectious-related complications and either functional or aesthetical alterations at minimum (Esthetic correction of depressed frontal bone fracture, 2011). The goal of frontal sinus fracture management is to create a safe sinus, restore facial contour, and avoid short and long term complications. The anterior table of the frontal sinus is normally convex. Compressive forces on the frontal bone deform the convexity into a concavity. Comminuted fractures can result in trapped mucosa within fracture lines. This can result in sinusitis, or late mucocele formation. Any redundant or injured mucosa at the periphery of the fracture or on isolated bone fragments should thus be removed (Rifaie and Taher, 2006; Stanley, 1989).

REFERENCES

- EL-Rifaie, K.M., Taher, A.A. 2006. Frontobasal fractures. Guidelines to management Egypt. *J Plast Reconstr Surg.*, 27:113–9.
- Esthetic correction of depressed frontal bone fracture. *Natl J Maxillofac Surg.* 2011 Jan-Jun; 2(1): 69–72.
- Stanley, R.B. 1989. Fractures of the frontal sinus. *Clin Plast Surg.*, 16(1):115. 2. Reidel. In Schenke: inaug dissertation. Jena, 1898.
- Stanley, R.B. 1998. Management of complications of frontal sinus and frontal bone fractures. *Oper Tech Plastic Reconstr Surg.*, 5:296–301.
