البحث الثامن

عنوان البحث باللغة الإنجليزية:

Management of frontal air sinus fractures. Case series from a single institution and Literature review.

ABSTRACT

Objective: evaluation of different modalities used in mangement protocol of traumatic frontal air sinus fractures, and to make a simplified algorithm for the treatment of FSF.

Methods: The is a retrospective study done in the Department of Neurosurgery Beni-Suef university hospitals, between may 2018 and may 2023. We reviewed the data of 40 patients with documented traumatic frontal sinus fracture that were managed either non-surgically or surgically. The patients included in this review are from all the age groups with traumatic frontal sinus fracture documented by bone window cuts.

Results: Total of 40 patients were included in the study. (80%) are males and (20%) are females with mean age of years 29.2, 80% of them in age group from 20 to 40 years old. Motor car accident was the top cause (50%) followed by trauma by blunt objects (35%) finally falling from height (15%). Isolated anterior table injury occurred in 16 cases (40%), and isolated posterior table injury occurred in 12 cases (30%), also12 cases (30%) had combined anterior and posterior walls fracture. Surgical management was done in patients with severe displaced or comminuted fractures, Naso-Frontal Outlet Tract injury or obstruction (NFOT) or CSF leak.

Outcome: All the cases that were managed conservatively did not have complications. The cases managed surgically passed without complications except for one case that had wound infection and it was managed by wound debridement, and another case had CSF rhinorrhea that was managed conservatively and CSF leak stopped within 5days.by medications.

Conclusion: frontal air sinus fracture is common neurosurgical issue. Management decision depends up on many factors as degree of fracture displacement, CSF leak, NFOT status, and other associated intra cranial injuries. The purpose of treatment should be: (1) surgical repair of the bonny defect and closure of the connection between both the intracranial and extracranial compartments and or (2) prevention of any cerebrospinal fluid leakage. In this study we try to provide a simple plane for neurosurgical treatment of patients with traumatic frontal air sinus injuries.

Keywords: frontal air sinus, cerebrospinal fluid, Road traffic accident.