Management of Zygomatic Complex Fractures with Two Point Fixation

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Fractures of the zygomatic complex constitute 45% of all mid-face fractures, and it is the most common complex facial fracture which presents a challenging diagnostic and reconstructive task to the surgeon.¹² However, surgical intervention is not usually taken up unless a functional or aesthetic impairment such as infra orbital paresthesia, restricted mouth opening or depressed zygomatic prominence is noted. Surgical treatment with open reduction and internal fixation provide greater results in the post-operative rehabilitation of facial form, function and esthetics with less comorbidity.

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Ahamed, et al.: Management of ZMC fractures

Patient was subjected to open reduction and internal fixation at fronto-zygomatic and Zygomatico maxillary buttress under general anesthesia. Fronto zygomatic region was addressed through Supra orbital eyebrow approach and fixation was done with 4 hole with gap 1.5 mm titanium plate and 1.5 mm × 6 mm screws. Zygomatico maxillary buttress was addressed through intra oral upper buccal sulcus approach, following which zygoma elevated and fixation was done with 6 hole L shaped 1.5 mm titanium plate and 1.5 mm × 6 mm screws.

1, 2 and 4 months post-operative follow-up along with radiographic examination (Water's view) revealed excellent results in terms of the esthetic scar, facial symmetry, improvement in mouth opening and resolution of infra orbital paresthesia.

Points to Ponder

1. Two point fixation with mini plates at zygomatico maxillary region (Upper buccal sulcus approach) and fronto zygomatic region (Supra orbital eyebrow approach) yields favorable results in relation to post-operative stability and esthetics.
2. The chances of persistent paresthesia in the infra orbital region is reduced with two point fixation and miniplate osteosynthesis.

REFERENCES


A 38-year-old male patient reported to Department of Dental Surgery, Karpagam Faculty of Medical Science and research with complaint of swelling on the left side of face following fall from the bike. On extra oral examination, gross facial asymmetry on the left side with diffuse swelling over left cheek region associated with periorbital edema, sub-conjunctival ecchymosis and Infra orbital paresthesia. Ophthalmic examination revealed no signs of diplopia and eye movements were normal. On intra-oral examination, restricted mouth opening was noted with stable occlusion. Computed tomographic evaluation of facial bones displayed zygomatic complex fracture with medial rotation around the vertical axis.