

Surgical approaches and fixation patterns in zygomatic complex fractures

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The aim of this research was to analyze the surgical approaches and methods of rigid fixation used to treat zygomatic complex (ZC) fractures over a 10-year period. One hundred fifty-three patients who underwent surgery to treat ZC fractures between 1999 and 2008 were retrospectively evaluated. Demographic information, signs, and symptoms of the fractures, classification, surgical approaches, and methods of internal fixation were obtained from the medical records. The data were analyzed using statistical descriptive analysis and chi-square test ($P < 0.05$). The mean age of the sample was 31 years, and males were predominant (82.3%). In 60.1% of the patients, one surgical approach was used to treat the ZC fractures, whereas 2 surgical approaches were used in 24.8% of the patients. The zygomaticomaxillary buttress was fixed in 86.9% of the patients, followed by infraorbital rim fixation and zygomaticofrontal. There was a statistical significance between fracture displacement and surgical approach for the infraorbital rim ($P < 0.0001$) and zygomaticofrontal suture ($P < 0.0001$). Considering that adequate reduction and fixation should be performed and that we try to minimize the amount of scarring, the intraoral zygomaticomaxillary buttress approach is the first choice to treat ZC fractures. In cases of displacement bigger than 5 mm, approaches to 3 of 4 points of the ZC are mandatory to reduce the fractures. The infraorbital rim and zygomaticofrontal suture approaches are indicated to treat displaced fractures. © 2010 by

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open reduction and rigid fixation

surgical approach

Zygomatic bone fracture

