

Fixation of fractured anterior wall of maxillary sinus using fibrin glue in a zygomaticomaxillary complex fracture.

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Abstract:

BACKGROUND: Zygomaticomaxillary complex (ZMC) fracture occurs commonly, and restorations of facial shape and symmetry by 3-dimensional reduction and ridged fixation are important. A severe ZMC fracture is accompanied by fractures to the anterior wall of maxillary sinus; thus, various complications can occur without appropriate restoration by surgery.

METHOD: Of the patients with ZMC fracture from January 2008 to December 2012, 328 patients underwent surgery. Among them, 234 patients with severe fractures to the anterior wall of the maxillary sinus underwent restoration using fibrin glue (Tisseel; Baxter Healthcare, Norfolk, UK).

RESULTS: There were no major side effects in any of the 234 patients in whom Tisseel was used, and the bone fragments were fixed well in their original places according to postoperative CT findings.

CONCLUSION: Grafted bone fragments can be maintained in their original places by fibrin clot layers with Tisseel. Using Tisseel, operation time is reduced, and the bleeding tendency is decreased by reduced shearing force with surrounding tissues and the hemostatic reaction of fibrin. Therefore, it can be concluded that using Tisseel is one effective method for the restoration of fractures on the anterior wall of the maxillary sinus.