A prospective randomized study comparing fibrin sealant versus suture for conjunctival wound closure in orbital wall fracture surgery.

Authors: You H.-J., Son S.-T., Kim D.-Y., Han S.-K.

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Abstract:

The purpose of this randomized prospective study was to compare the clinical outcomes of orbital wall fracture surgery involving transconjunctival wound closure with fibrin sealant to the outcomes achieved with a conventional suture method. All surgeries were performed using the same technique, except that the conjunctival closure was achieved using either a buried 6-0 Vicryl suture (n = 10) or fibrin sealant (n = 10). The time to conjunctival closure and time required for complete wound healing were investigated. Postoperative discomfort in the two groups was compared at day 1, day 3, week 1, and week 4. Postoperative subconjunctival haemorrhage and peri-orbital ecchymosis were observed. The mean conjunctival closure time was significantly shorter in the fibrin group than in the suture group. All conjunctival wounds healed by the end of the first week. On postoperative days 1 and 3, the discomfort scores were significantly lower in the fibrin group. Subconjunctival haemorrhage and peri-orbital ecchymosis were less frequent in the fibrin group. Fibrin sealant proved to be as effective as sutures for conjunctival wound closure. Fibrin sealant allows a more comfortable early postoperative course and may be an excellent alternative for conjunctival wound closure in orbital wall fracture surgery.

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