

Evaluation of the effect of fibrin glue prepared from single-donor plasma on wound healing in rats. [Turkish]

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Publication Date: 2009

Abstract:

Commercial fibrin sealant products derived from pooled human plasma. Fibrin sealant has been approved for clinical use today. Fibrin glue prepared from single donor plasma has the advantage of safety from transmission of viral infections. Sufficient quantity of concentrated fibrinogen was produced by ethanol precipitation and obtained in a high percentage of recovery (79%). Additionally, presence of factor XIII was indicated in 5M urea solution. Two full-thickness, 5 cm-long, paravertebral incisions were made through the skin, on each side of the vertebral columns of the 15 Wistar Albino rats. One of the incisional wounds of each animal was treated with fibrin glue. The other incisional wound was not treated and acted as a control. The healing process was examined histologically at postoperative 2nd, 7th and 14th days. Cell proliferation and collagen formation were found to be significantly increased on the fibrin glue-treated sites of all groups. Fibrin glue revealed a positive effect on wound healing observed as enhanced granulation and reepithelization.