

# **Effect of fibrin glue on irradiated colonic anastomoses.**

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## **Abstract:**

INTRODUCTION: The present study was planned to research the effects of fibrin glue on irradiated colonic anastomoses. METHOD: The effect of fibrin glue on irradiated colonic anastomoses was investigated in four identical groups of rats. In Group I (control group) colonic anastomoses were performed without radiotherapy; in Group II, colonic anastomoses were performed five days after radiotherapy; in Group III, fibrin glue was applied to anastomotic line without radiotherapy; in Group IV, fibrin glue was applied to anastomotic line with radiotherapy. The healing of left colonic anastomoses was evaluated through the bursting pressure of the anastomotic segment and the hydroxyproline contents of the anastomosis. RESULTS: Measurements done on the fourth postoperative day revealed that anastomotic healing was impaired in rats that underwent radiotherapy ( $P < 0.001$ ); fibrin glue had no effect on anastomotic healing in groups with or without radiotherapy. CONCLUSION: In the early phases of anastomotic healing, fibrin glue cannot help remove unwanted effects of preoperative radiotherapy.