

Fibrin glue protection of primary anastomosis in the obstructed left colon. An experimental study on the rat.

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Abstract:

A left-sided colon obstruction was produced with a polypropylene sling in 65 rats. Colon resection and primary anastomosis were performed three days later. The animals were then randomly allocated to the FG (fibrin glue) group receiving sealing of the anastomosis with 0.4 ml of fibrin glue (Beriplast R), or to the NG (non-glue) group. The anastomoses were assessed 30 min, two days and four days later. Adhesion formation was similar in both groups. The number of macroscopic or radiological leakages did not differ either. At 30 min the mean bursting pressure was 74.6 \pm 8.6 (SD) mmHg in the FG group and 58.3 \pm 21.6 mmHg in NG (non-glue) group ($p < 0.05$, Mann-Whitney test). Later on the strength of the anastomoses was equal in both groups. We conclude that the initial sealing of weak points in the anastomoses was beneficial but the inherent strength per se could not be enhanced.