Effects of fibrin glue and growth hormone on the healing of colon anastomoses in the condition of immediate postoperative intraperitoneal chemotherapy. [Chinese]

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Abstract:

OBJECTIVE: To investigate the effects of fibrin glue and growth hormone on the healing of colon anastomoses after immediate postoperative intraperitoneal chemotherapy. METHODS: Forty-eight rats were randomly divided into 4 groups, and received colon resection and anastomosis(control group),or early postoperative intraperitoneal chemotherapy(EPIC) with 5-Fu(20 mg*d kg-1*d-1) for 3 days after operation (chemotherapy group), or coverage of the stoma with fibrin glue and then EPIC(FG group), coverage of the stoma with fibrin glue and then EPIC plus subcutaneous injection of growth hormone(1 mg*d kg-1*d-1)(GH group). All the rats were killed on the 8th postoperative day, and adhesion formation score, bursting pressure of the stoma, and histological score were investigated. RESULTS: The adhesion formation score in chemotherapy group was significantly higher than those in the other three groups($P < 0.05$); but there was no significant difference among the other three groups($P > 0.05$). The bursting pressure of the stoma was significantly higher in GH group than those in the other three groups; and significantly higher in FG group and the control group than that in chemotherapy group. The histological score of the stoma in GH group was significantly higher than those in the other three groups($P < 0.05$). CONCLUSION: Fibrin glue in combination with growth hormone can enhance the strength of the stoma and improve the healing of colon anastomoses in the condition of early postoperative intraperitoneal chemotherapy.