Influence of fibrin sealant in preventing postoperative seroma and normalizing the abdominal wall after laparoscopic repair of ventral hernia.

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Abstract:

Background: Seroma after laparoscopic ventral hernia repair (LVHR) has been related to certain complications of the technique, such as recurrences and postoperative pain. The aim of this study was to assess whether percutaneous application of fibrin sealant in the hernia sac after LVHR reduces the incidence and volume of the postoperative seroma, and to analyze whether the percentage of patients achieving complete normalization of the abdominal wall increases. Methods: Prospective and comparative study. Patients were distributed into 2 control-case groups. Group 1 comprised patients submitted to LVHR using the double crown technique and a compressing bandage as the only method for prevent seroma. Group 2 comprised patients admitted to LVHR using the same technique together with percutaneous injection of fibrin sealant in the sac, and later applying the same bandage. Patients were examined clinically and radiologically at 7 days, 1 month, and 3 months after surgery. Results: Twenty-five patients were included in each group. There were significant differences in the incidence of seroma by the day 7 after surgery (92 % in group 1 vs. 64 % in group 2, p = 0.017) and by 1 month (72 % in group 1 vs. 28 % in group 2, p = 0.002). The difference was also significant regarding the achievement of normalization of the abdominal wall by day 7 (24 % in group 1 vs. 52 % in group 2, p = 0.041) and by month 1 (64 % in group 1 vs. 88 % in group 2, p = 0.047) after operation. Volume of seroma was larger among patients of group 1 after the week (p = 0.002) and 1 month after operation (p = 0.001). Conclusions: Fibrin sealant application after LVHR reduces the incidence and volume of the seroma 7 days and 1 month after

surgery. The treated patients obtain a larger normalization of the abdominal wall 1 week and 1 month after the operation.