

Effect of Fibrin Sealant on Seroma Formation Post-Incisional Hernia Repair

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Abstract

Background: Development of seroma after incisional hernia repair is a common complication. Our study aims to compare the outcomes of sublay incisional hernia repairs with or without spray instillation of fibrin glue.

Methods: We enrolled fifty patients undergoing incisional hernia repair. In all patients a suction drain was placed in the subcutaneous space. In one group (FG) 4 ml fibrin glue was instilled in the subcutaneous space. In the control group (C) patients did not receive any prevention measure. Wounds fluids were collected on post-operative day 1 (POD) and once daily until drain removal. All patients were followed up by ultrasound on POD 15, 20, 40, 60.

Results: Drain fluid production, even if in significantly greater amount in the C group ($p < 0.01$) as compared with the FG group, decreased after POD 1 in both groups. Drain was removed on POD-5 in 80% of FG patients and in 36% of C patients ($p < 0.01$). No infective or bleeding complications were detected. In group FG average hospital stay was of 5.5 ± 2 days versus 7.1 ± 1.5 days in group C ($p < 0.01$). At ultrasounds examination, seroma development was similar among two groups.

Conclusions: Spray instillation of fibrin glue during the surgical repair reduces amount of drained fluid and hospital stay without increasing surgical complications. However, seroma occurrence was not significantly reduced.

Key words: seroma, fibrin sealant, incisional hernia, surgical hernia repair