Slow versus rapid fibrin glue for the prevention of seroma in abdominoplasty.

Authors: Toman N., Lange V., Rosenthal A., Reuther P., Turan O.

Publication Date: 2015

Abstract:

Background: The formation of a seroma is one of the most frequent complications following an abdominoplasty. A preventive effect on seroma formation by using fibrin glue in an operation is discussed. The effect of operative fibrin sealant on the formation of seromas was investigated in patients who had an abdominoplasty. The relevance of slow versus accelerated fibrin polymerization was determined. Methods: Two different thrombin concentrations (4 IE vs. 500 IE thrombin/ml) of the fibrin sealant were used in two groups of 60 patients. The control group consisted of 60 patients who underwent abdominoplasties without using a fibrin glue adhesion. One patient had to be excluded. Results: Patients in the group with the slow reacting fibrin sealant (4 IE) had a significantly lower rate of seroma formation when compared to the high concentration fibrin group and the control group ($p< 0.04$ and $p< 0.05$, respectively). In addition, the amount of postoperative drainage was significantly lower in the low-dose group ($p<0.001$). Patients with a seroma had a significantly higher resected tissue weight ($p<0.0001$). A higher body-mass-index ($p<0.0001$) and the amount of postoperative drainage ($p< 0.0001$) were found to be significant risk factors for the development of a seroma. The Age had no significant impact on the prevalence of complications. Conclusion: The use of slow reacting, low-dose fibrin glue demonstrated a protective effect against the formation of a seroma following abdominoplasty. The amount of postoperative drainage was significantly lower.