

Topical use of autologous fibrin glue in high-risk CABG patients.

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Abstract:

Background: Surgical site wound complications following cardiothoracic surgery are associated with increased costs, morbidity, and mortality. Several factors have been shown to be associated with an increase in deep and superficial wound healing problems. Recent publications have suggested protective effects of topical autologous blood components with regard to wound healing disturbances after various surgical procedures. The aim of this retrospective analysis was to assess the impact of autologous fibrin glue on surgical site complications in high-risk coronary artery bypass graft patients. **Methods:** 1394 consecutive patients who underwent CABG surgery from a single centre were included in the study. Autologous fibrin glue was used in 122 patients (8.8%) with elevated risk for wound complications according to institutional guidelines. The demography of both groups was compared and the following outcome variables were analyzed: deep sternal wound infection, sternal re-wiring, bleeding, reexploration rate, and the use of a vacuum assisted closure system. **Results:** No treatment-related adverse events were noted. The group of patients who received autologous fibrin sealant had significantly higher BMI levels, included more diabetics and repeat cardiac procedures and they underwent percutaneous coronary intervention more often. Furthermore, they were more likely to receive bilateral mammary artery grafts. Despite the high-risk profile of the Fibrin glue group rates of revision, deep sternal wound healing problems tended to be lower than in the control group. **Conclusions:** In our experience autologous fibrin glue does not invoke any adverse events and serves as a useful adjunct to haemostasis in cardiac surgery. However, the incidence of wound disturbances was similar in both arms of the study. In light of the ever-increasing clinical use a prospective randomized controlled trial examining the impact of

autologous fibrin glue is warranted. © Springer-Verlag 2011.