Randomized clinical trial on the effect of fibrin sealant on latissimus dorsi donor-site seroma formation after breast reconstruction.

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Abstract:

BACKGROUND: Latissimus dorsi (LD) flap procedures comprise 50 per cent of breast reconstructions in the UK. They are frequently complicated by seroma formation. Fibrin sealants may reduce seroma volumes at the donor site. The aim was to investigate the effect of fibrin sealant (Tisseel()) on total seroma volumes from the breast, axilla and back (donor site) after LD breast reconstruction. Secondary outcomes were specific back seroma volumes together with incidence and severity of wound complications.

METHODS: Consecutive women undergoing implant-assisted or extended autologous LD flap reconstruction were randomized to either standard care or application of fibrin sealant to the donor-site chest wall. All participants were blinded for the study duration but assessors were only partially blinded. Non-parametric methods were used for analysis.

RESULTS: A total of 107 women were included (sealant 54, control 53). Overall back seroma volumes were high, with no significant differences between control and sealant groups over 3 months. Fibrin sealant failed to reduce in situ back drainage volumes in the 10 days after surgery, and did not affect the rate or volume of seromas following drain removal.

CONCLUSION: This randomized study, which was powered for size effect, failed to show any benefit from fibrin sealant in minimizing back seromas after LD procedures.