A prospective randomized trial of the efficacy of marginal quilting sutures and fibrin sealant in reducing the incidence of seromas in the extended latissimus dorsi donor site.

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Abstract:

BACKGROUND: The extended latissimus dorsi is a workhorse flap and plays an important role in breast reconstruction. Unfortunately, seromas at the flap donor site are a frustrating problem complicating many procedures. The purpose of this study was to evaluate the efficacy of a combination of fibrin sealant (Quixil; Johnson & Johnson, Langhorne, Pa.) and limited quilting sutures at reducing seroma formation. METHODS: This was a prospective, double-blinded, clinical trial under a single surgeon. Twenty-six patients were enrolled in the study, and all were followed up for a period of 6 months. The patients were randomized to receive either quilting sutures only (group 1) or a combination of Quixil sealant and marginal quilting sutures (group 2). RESULTS: The incidence of seroma was 23.1 percent in group 1 and 7.7 percent in group 2 (odds ratio, 0.28; relative risk, 0.33). The mean total volume aspirated was significantly higher in group 1 (196.7 ml compared with 30 ml, p = 0.01). The average number of aspirations was 2.7 in group 1 compared with one in group 2. There was a significant reduction in inpatient stay for group 2 by 2 days (p = 0.01). Operative time was shortened by an average of 25 minutes. CONCLUSIONS: The combination of fibrin sealant and marginal quilting sutures significantly reduces total drainage, hospital stay, and seroma formation. In the authors' opinion, the benefits of seroma prevention outweigh the extra costs associated with this product. The potential, albeit small, risk of virus transmission and allergic reaction, however, needs to be taken into consideration, as with any blood transfusion product.