

Prospective control study using fibrin sealants and Harmonic scalpel in Latissimus Dorsi flap transfer.

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Abstract:

BACKGROUND: Latissimus dorsi flap (LD) is used in breast reconstruction procedures, although prolonged donor site drainage is a frequent complication. To decrease this problem, quilting sutures and/or fibrin sealants were proposed, with alternate results. The primary objective of this study was to assess the effectiveness of Tisseel in association with the Harmonic Synergy blade system to reduce this complication.

MATERIALS AND METHODS: Between 2010-2012, 20 consecutive patients undergoing immediate unilateral breast reconstruction with LD were enrolled in the study (Group A) and matched with 20 patients in which LD was raised with electrocautery (Group B), and 20 patients in which LD was harvested with Harmonic (Group C). After informed consent acquisition, Harmonic was used in Group A for LD harvesting, but differed from other groups as fibrin glue was applied to the donor site prior to closure. In all groups donor site drainage measurements at 24 and 48 hours, total drain volume, days to drain removal, operation time, and complication rate were recorded. Pearson's Chi-squared, ANOVA, and Bonferroni post-hoc tests were used to analyze the data.

RESULTS: Data analysis did not show any statistical difference. Prolonged drains output ≥ 15 days occurred in one patient of Group A and C, and in three Group B patients.

CONCLUSION: Although the combined use of Harmonic and Tisseel presents a low donor site fluid

collection rate, the fibrin glue seems not to have further beneficial effects in reducing the post-operative serous drainage or to lead to an early drain removal when compared to Harmonic only.