Sealing of postoperative axillary leakage after axillary lymphadenectomy using a fibrin glue coated collagen patch: A prospective randomised study.

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Abstract:

Seroma formation after axillary lymphadenectomy in women with breast cancer remains a problem despite many efforts to reduce surgery-related morbidity. In a prospective, randomised, open, parallel-group, controlled clinical trial we evaluated the effect of a fibrin-glue coated collagen patch (TachoComb H, Nycomed Pharma AS, Denmark) on volume and duration of postoperative axillary drainage, duration of hospital stay, and procedural safety. Sixty patients were included in the study. Patients did not differ with respect to general characteristics, such as age, body mass index, treatment modality, and tumor stage distribution. In 29 patients, a fibrin-glue coated collagen patch was applied from the apex axillae to the thoracic longus nerve and half a patch was applied to the lateral border of the axillary nerve-vessel bundle. Thirty-one patients were randomised to standard closure of the axillary lymphadenectomy area. The mean duration of axillary drainage was 3.8 +/- 1.9 days in the fibrin-glue treatment group and 3.9 +/- 1.8 days in the control group (p = NS). The mean total drainage volume was 338.5 +/- 251.8 ml in the fibrin-glue treatment group and 370.8 +/- 314.6 ml in the standard closure group (p = NS). The mean length of post-operative hospital stay was 9.1 +/- 2.7 days in the fibrin-glue treatment group and 9.3 +/- 3.6 days in the standard closure group (p = NS). Seven patients (25%) and eight patients (25%) were diagnosed with local inflammation in the fibrin-glue treatment group and the standard closure group, respectively (p = NS). Seroma formation after drain removal was found in 11 patients (39%) in the fibrin-glue

treatment group and in 13 patients (42%) in the standard closure group (p = NS). In summary, we observed no statistically significant differences with respect to axillary drainage time, drainage volume, length of hospital stay, local inflammation, and seroma formation after drainage removal.