Collagen sealant patch to reduce lymphatic drainage after lymph node dissection.

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Abstract:

BACKGROUND: Seroma formation is a frequent complication following radical lymph node dissection (RLND) in patients with metastatic melanoma. Several strategies have been used to prevent fluid accumulation and thereby reduce the duration of postoperative drainage, including fibrin sealants.

METHODS: This was a prospective, single-center study in which consecutive patients undergoing surgical treatment of stage III metastatic melanoma by axillary or ilio-inguinal RLND were randomized to receive standard treatment plus fibrinogen/thrombin-coated collagen sealant patch (CSP) or standard treatment alone. The primary endpoint of the study was postoperative duration of drainage.

RESULTS: A total of 70 patients underwent axillary (n = 47) or ilio-inguinal (n = 23) RLND and received CSP plus standard treatment (n = 37) or standard treatment alone (n = 33). Mean duration of drainage was significantly reduced in the CSP group compared with standard treatment (ITT analysis: 20.1 +/- 5.1 versus 23.3 +/- 5.1 days; p = 0.010). The percentage of patients drainage-free on day 21 was significantly higher in the CSP group compared with the standard treatment group (86% versus 67%; p = 0.049).

CONCLUSIONS: Use of the tissue sealant resulted in a significant reduction in duration of drainage.

Further studies are warranted to confirm these results in different and selected types of lymphadenectomy.