Does fibrin sealant reduce drain output and allow earlier removal of drainage catheters in women undergoing operation for breast cancer?.

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Abstract:

Serosanguinous drainage after mastectomy and axillary lymph node dissection has traditionally been treated with the temporary use of closed suction drainage catheters. Use of drainage catheters is associated with wound infection, discomfort, nerve injury, and impaired arm movement. Commercially produced fibrin sealant has been proposed to reduce postoperative serosanguinous collections. We hypothesized that the intraoperative application of low-dose (2-5 cm3) fibrin sealant would reduce serosanguinous drainage and allow earlier removal of closed suction drainage catheters after operation for breast cancer. Fifty-five women with known breast cancer underwent either total mastectomy, modified radical mastectomy, or isolated level I and II axillary lymph node dissection. Twenty-six patients were treated with fibrin sealant and 29 served as control subjects. The application of fibrin sealant resulted in a significant reduction in overall duration catheters were needed (7 vs 8.3 days; P = 0.05). More importantly fibrin sealant reduced the time until 24-hour drain output was less than 30 cm3 (4.9 vs 6.2 days). Additionally fibrin sealant application resulted in a 60 per cent reduction in overall drainage amount after total mastectomy and a 32 per cent reduction after modified radical mastectomy. The application of fibrin sealant after axillary lymph node dissection did not decrease overall drainage amount. In conclusion fibrin sealant reduces serosanguinous drainage after total mastectomy and modified radical mastectomy and may allow earlier removal of closed suction drainage catheters.