Randomized clinical trial investigating the use of drains and fibrin sealant following surgery for breast cancer.

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Abstract:

BACKGROUND: Despite limited evidence, closed suction drainage is often used to reduce the risk of seroma formation after breast cancer surgery. The aim of this study was to evaluate the effect of drains and fibrin sealant on the incidence of seroma formation.

METHODS: A total of 116 patients undergoing surgery for breast cancer were randomized to receive suction drainage (group 1; n = 58), or to receive no drain (n = 58). Patients allocated to receive no drain were further randomized to have fibrin sealant applied to the dissected area (group 2; n = 29), or to no intervention (group 3; n = 29). Outcome measures were incidence and volume of postoperative seroma, length of hospital stay and postoperative pain scores.

RESULTS: There was no significant difference in the incidence of seroma between group 1 (15 of 58) and either group with no drains (ten of 29 in group 2; 12 of 29 in group 3). There was a significant reduction in hospital stay and postoperative pain scores in patients who did not have a drain. Following mastectomy without a drain, the use of fibrin sealant was associated with a significant reduction in the incidence and total volume of seroma (190 versus 395 ml; P = 0.012).

CONCLUSION: Drains did not prevent seroma formation, and were associated with a longer postoperative stay and higher pain scores after surgery for breast cancer. In patients who had mastectomy the use of fibrin sealant reduced the rate of seroma formation.