Seroma prevention using fibrin glue during modified radical neck dissection in a rat model.

Authors: Lindsey W.H., Masterson T.M., Llaneras M., Spotnitz W.D., Wanebo H.J., Morgan R.F.

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Abstract:

Seroma is a frequent sequelae of neck dissection involving cervical lymphadenectomy. The incidence is correlated with flap elevation, lymphovascular interruption, and tissue removal. Current methods of resolving seroma, such as vacuum drainage, are not risk free. A novel approach to this problem was the use of intraoperative topical fibrin glue. A model producing seromas was developed by modified radical neck dissection on Sprague-Dawley rats. Forty rats underwent this procedure. Twenty rats were treated with saline solution (control group) and 20 were treated with fibrin glue. At necropsy on day 5, a significant reduction in the frequency of seroma was noted in the fibrin glue group. Seventeen of 20 control rats had seroma whereas only 2 of 20 experimental animals had serous collection. The Fisher exact statistical correlation revealed $p < 0.000002$; therefore, the use of fibrin glue in this role merits further evaluation.