Reducing seroma formation with fibrin glue in an animal mastectomy model.

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Publication Date: 1996

Abstract:

Mastectomy is a frequently performed surgical procedure which has some important complications that may prolong hospital stay. Seroma formation after mastectomies and axillary dissection has an incidence of 5.8-53%. A new technique for preventing seroma formation was studied in an animal mastectomy model. Radical mastectomy was performed in guinea pigs. A control group of 20 animals had no further procedure post-mastectomy other than drying the wound with sterile gauze. In the other group fibrin glue was topically applied to prevent seroma formation to the operative field. Ten days after the operation, necropsy was performed and fluid collections were drained with an 18-gauge needle. The results were statistically analysed with a Two-sample rank-sum test. A significant difference existed between Groups I and II ($P < 0.00005$). It is concluded that fibrin glue can be used to prevent seroma formation after mastectomies.