

The Use of Ligasure Vessel Sealing System in Axillary Dissection; Effect on Seroma Formation

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Abstract

Background: Seroma formation is the most frequent post-operative complication after axillary dissection for breast surgery with an incidence of 10 - 50 %. This prospective clinical randomized study was carried out to evaluate the Ligasure vessel sealing system and its effect on seroma formation and other complications for axillary dissection.

Methods: Between January 2006 and November 2007, the patients with histopathological diagnosis of breast cancer were analysed prospectively. The patients with positive sentinel lymph node biopsy or clinical axillary involvement were included in the study, and the patients who underwent neo-adjuvant therapy or using anticoagulants have been excluded from the study. Patients were divided into two study groups. Axillary dissection was performed in the first group by LigaSure and in the second group by linking and electrocautery.

Results: There were a total of thirty three patients with a mean age of 51.4 ± 13.7 . In group one, mean age of patients was 54.1 ± 13.2 and 48.68 ± 14.1 in group two. There was no significant statistical difference between the groups regarding age, body mass index, excised tissue weight, tumour size and number of excised lymph nodes. The use of Ligasure reduced drainage amount and duration of drain till removal, but increased operative time.

Conclusion: There were no significant differences between study groups regarding the complications. LigaSure electrothermal bipolar vessel sealing system can be safely used in axillary dissection as an alternative to traditional methods.

Key words: breast cancer, axillary dissection, seroma formation, vessel sealing system

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