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“NO DRAIN” AND DAY-CASE MASTECTOMY AND AXILLARY SURGERY: OUR EXPERIENCE

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Background: Seroma formation is the most common complication following breast cancer and axillary surgery, with incidence ranging from 15% to 85%. Delayed wound healing, discomfort, infection, and delay in starting adjuvant therapies are the main complications following seroma formation. Several factors have been considered responsible for seroma; however, its pathogenesis is not yet fully understood. Despite the fact that there is no clear evidence that the use of drain reduces the incidence of seroma formation, closed suction drainage following mastectomy and axillary lymph node clearance remains the standard of practice for most of the breast surgeons in the UK. Patients' discomfort, wound infection, and prolonged hospital stay are the major drawbacks of drain surgery. **Objective:** The aim of this study is to present and evaluate our experience in no drain mastectomy combined with axillary surgery. **Methodology:** Patients who underwent a simple mastectomy and axillary surgery from January 2017 to January 2021 for breast cancer were divided by a single oncoplastic breast surgeon in a tertiary Breast Unit in London, UK, into mastectomy and sentinel lymph node biopsy and axillary clearance subgroups. Parameters such as patients' demographics, performance status, tumor characteristics, hospital stay, drain status, and complications were evaluated. Mastectomy flaps were dissected using electrocautery, with thoroughly sealing of the lymphatics, and were fixed onto the chest wall with polyglactin 910 sutures, and an axillary cavity was closed by suturing clavipectoral fascia to prevent seroma formation. No drain was used in either subgroup of patients apart from a single case with bleeding disorders. **Results:** A total of 52 patients (51 females and 1 male) underwent mastectomy and axillary surgery. Of these, 32 patients had axillary clearance (axillary lymph node clearance [ALND]) and 19 had sentinel lymph node biopsy (SLNB). Of the 52 patients, 9 were <40 years old, 7 were 40–50, 11 were 50–60, and 26 >60 years old. Performance status (ASA score) was as follows: ASA I: 20 patients, ASA II: 20, ASA III: 10, and ASA IV: 2 patients. A total of 42 patients had day surgery (24 in the ALND and 18 in the SLNB subgroup). The median number of lymph node retrieval was 2.6 and 13.6 in the SLNB and ALND, respectively. In terms of complications, three patients developed seroma in the early post-op period (two in the ALND and one in the SLNB subgroup), two patients had wound infection treated with antibiotics, and three had hematoma treated conservatively. **Conclusion:** Despite the lack of clear evidence that drain reduces the incidence of seroma, the use of drain is widely accepted among surgeons when mastectomy is performed with either SLNB or axillary clearance. The data demonstrate that no drain and day-case approach in mastectomy combined with axillary surgery can be safely performed even in patients with axillary clearance, with minimum complication rates. Sealing of the lymphatics with electrocautery combined with the fixation of mastectomy skin flaps on the chest wall with plication sutures and closure of axillary dead space seems to be efficient in seroma prevention.

Keywords: No Drain Mastectomy; Reduction of Seroma; Seal of lymphatics; Plication Sutures.