

Drainless Breast Surgery with Axillary Lymph Node Dissection Using Quilting Sutures: Seroma Outcomes from a Retrospective Institutional Cohort

Maham Qazi Breast Surgery Fellow · Hammad Raza Sheikh Head of Department
Department of Breast Surgery, Cancer Care Hospital, Lahore, Pakistan

Objective

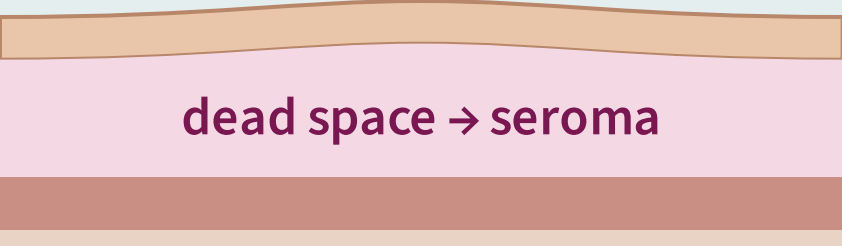
To determine the proportion of patients developing seroma after omitting closed-suction drains in breast cancer surgery with ALND, and to compare mastectomy with breast-conserving surgery.

Methods

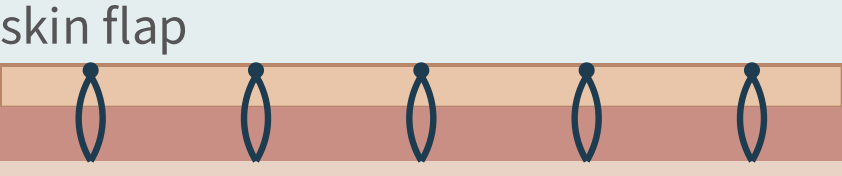
- Retrospective, single-centre cohort
- 1 Sep 2020 – 30 Nov 2024
- Mastectomy or BCS with ALND, **no drain placed**
- Quilting sutures for flap fixation and dead-space obliteration
- Outcome: documented postoperative seroma
- Proportions with 95% CI; groups compared by Fisher’s exact test

Quilting technique

Without flap fixation



Quilting sutures (drainless)



flap tacked down, no dead space

RESULTS

1 Study cohort

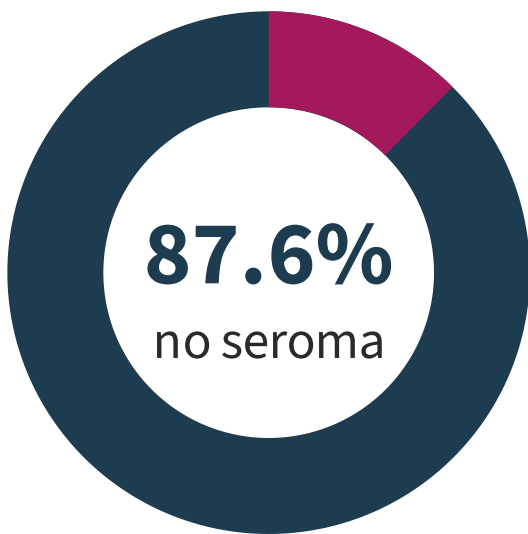
428

ALND procedures, all without drains



Mastectomy **n=293** BCS **n=135**
Median age **48 years** (IQR 40–56.5)

2 Overall seroma outcome



No seroma 375 / 428

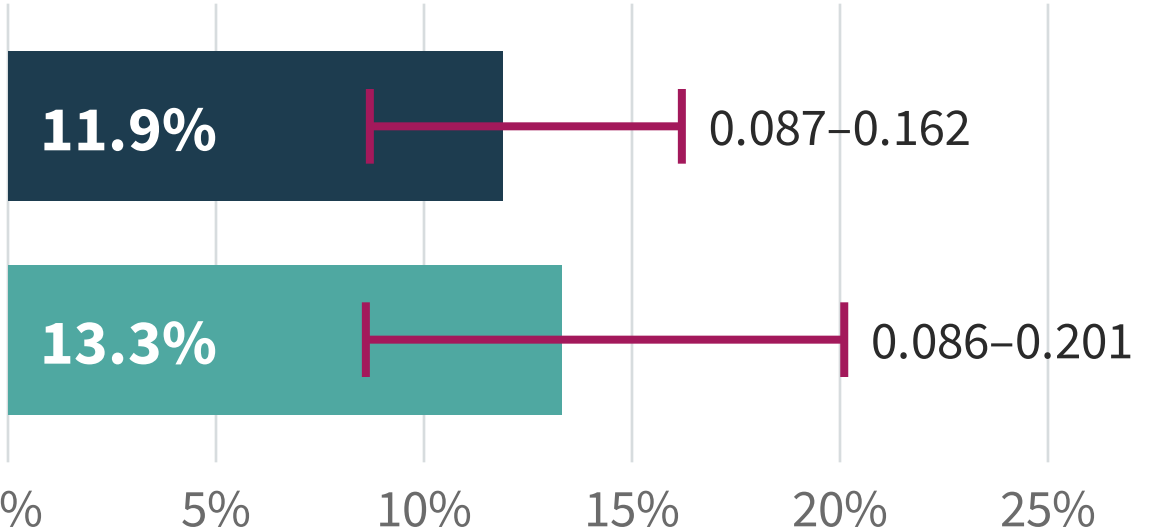
Seroma 53 / 428

12.4%

overall seroma rate
(95% CI 0.096–0.158)

3 Seroma by type of breast surgery

Mastectomy
35 / 293



95% CI

p = 0.752 (Fisher’s exact) · no significant difference

~88%
seroma-free

Conclusion

Drainless ALND with quilting sutures gave a 12.4% seroma rate, at the low end of the 3% to over 85% reported after mastectomy [1]. Routine drains may be avoidable when effective flap fixation and dead-space obliteration are achieved.

[1] Makhseed A, Alneamah S, Abdelmaseeh MM. Strategies to prevent seroma formation after mastectomy surgery: a systematic review and meta-analysis. *JPRAS Open*. 2025 Dec 1.