

Patient-Level Costs of Staged Unilateral versus Bilateral Immediate Symmetrization Mammoplasty

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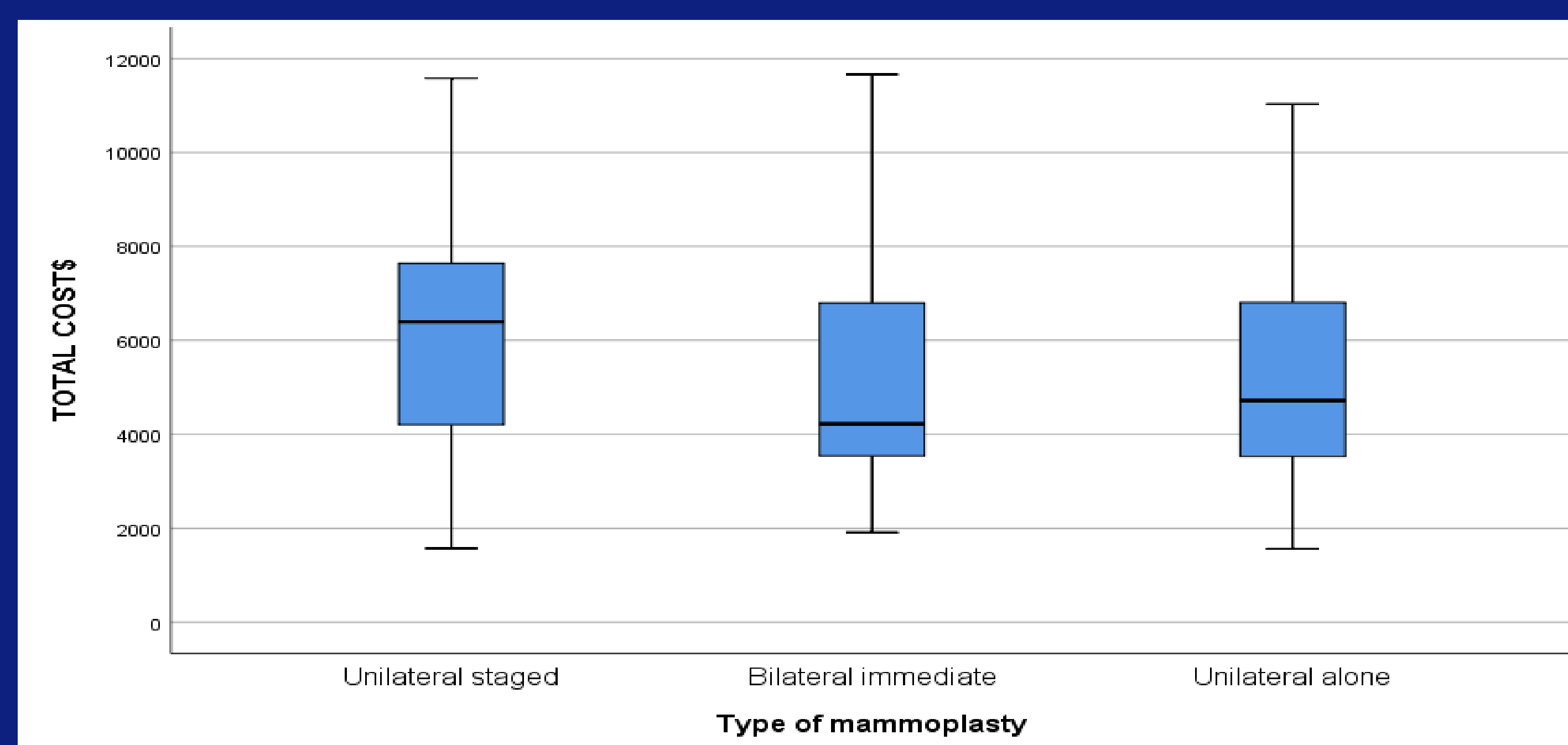
BACKGROUND

- Therapeutic mammoplasty extends the boundaries of breast conserving surgery, preserving natural breast cosmesis and circumventing the need for mastectomy.
- However, following unilateral therapeutic mammoplasty, a contralateral procedure (mastopexy / mammoplasty) is often needed to improve symmetry.
- There is no consensus regarding when this contralateral balancing procedure should be performed.
- The objective of this study was to investigate the impact of staged unilateral versus immediate bilateral symmetrisation mammoplasty for breast conserving surgery (BCS) on patient level costs.

METHODS

- The study was conducted at a large academic Medical Center.
- Data was collected from women who had received either unilateral alone (n=76), unilateral staged mammoplasty by single attending (n=26) or bilateral immediate mammoplasty by dual attending (n=27) between April 2015 and March 2019.
- Financial data were retrieved using the Patient-Level Information and Costing Systems (PLICS), a software package using a unit of observation based on the hospital admission.
- The exchange rate from GBP to USD used was 1.29. Statistical analysis was conducted using STATA (v14.2)

FIGURE 1 – Total median costs of unilateral staged, bilateral immediate and unilateral alone therapeutic mammoplasty



RESULTS

- The additional median cost of unilateral staged mammoplasty versus bilateral immediate mammoplasty is \$5,383 (range: \$3,853 to \$6,447, p<0.01) per patient.
- The median cost of unilateral staged mammoplasty (index & subsequent symmetrisation) is \$11,476 (range: \$4,696 to \$17,922).
- The median cost of index procedure was \$4,906 (range \$2,021 to \$10,192) and median cost of subsequent symmetrisation was \$5,292 (range \$1,489 to \$10,556).
- The median cost of bilateral immediate mammoplasty was \$6,093 (range \$2,165 to \$17,184).
- There was no statistically significant difference in clinicopathological determinants of age, Charlson Comorbidity Index or tumour size between the comparator groups.
- Only 1 patient experienced a complication and return to theatre for evacuation of haematoma in the unilateral staged symmetrisation cohort.
- Extrapolation of a subsequent contralateral symmetrisation at the median cost for unilateral mammoplasty alone patients (n=76) would represent an additional \$408,878 in cost at our institution.

CONCLUSION

- The authors present the first cost comparison between immediate bilateral mammoplasty and delayed unilateral staged symmetrisation, with a granular approach to cost at the patient level.
- The results demonstrate that the facilitation of single-stage immediate symmetrisation mammoplasty is of significant financial benefit to the NHS, which may be extrapolated to the US setting.
- Synchronous dual consultant operating may also improve cosmesis, reduce visits to hospital for delayed symmetrisation, with potential to enhance patient satisfaction.
- This study has demonstrated the magnitude of added patient-level costs of delayed symmetrisation after BCS and established a framework for further health economic analyses.

REFERENCES

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