Patient-reported symptoms in the perioperative period of breast cancer treatment

Courtney Fulton, MD; Laura E Davis, MSc; Alyson L Mahar, PhD; Lev D. Bubis, MD; Lesley Moody, MBA; Qing Li, MMATH; Lisa Barbera, MD; Natalie G Coburn, MD MPH; Claire MB Holloway, MD PhD

BACKGROUND

Patient-reported outcomes are an important component in assessing quality of care and success of treatment.

The impact of breast surgery on patient reported symptoms has not been previously reported at the population level.

OBJECTIVE

To examine perioperative changes in nine common patient reported symptoms with breast cancer surgery

METHODS

Population & Design

• Retrospective cohort study 2007-2016
• Stage 1-3 breast cancer undergoing surgery

Data Sources

• Interactive Symptom Assessment and Collection database (ISAAC)
• Ontario provincial administrative healthcare data

Outcomes

• Mean scores in the Edmonton Symptom Assessment System (ESAS)
• Proportion of patients with a change in score ≥ 1 after surgery
• Mixed model for rate of change of scores

Analysis

• Multivariable analysis with robust variance
• Generalized estimating equations
• Confounders were identified a priori

RESULTS

Figure 1: Select Demographics

Figure 2: Mean Symptom Scores Before and After Surgery

Figure 3: Change in Symptoms Before and After Surgery

Figure 4: Trajectory of ESAS Scores

This unique cohort of 2,234 had 8,000 assessments in 4 months making it the largest study of patient reported outcomes in the perioperative period.

Some limitations:

• Only a small proportion of patients had scores prior to surgery
• Restricted to regional cancer centers
• ESAS does not measure other important breast symptoms like body image, sexual health etc.

CONCLUSION

Patient-reported symptom scores for anxiety often decrease following surgery, perhaps indicating that surgery and the development of treatment plans may mitigate symptoms among breast cancer patients.

Further efforts should be made to identify the subgroup of patients with increased anxiety after surgery, as they may need more individualized care.