OUTCOMES AFTER MASTECTOMY FOR BREAST CANCER, MALES VERSUS FEMALES: A NSQIP STUDY

Andrea Gillis MD, Lynn Choi MD, Ashar Ata PhD, Marie Ward MD
Division of Breast Surgery, Albany Medical Center, Albany, NY

INTRODUCTION

• Male patients with breast cancers are often diagnosed at more advanced stages and older ages.1,2
• The objective of this study was to compare patient demographics and postoperative outcomes between male and female patients.
• Do male patients have worse outcomes since they are frequently diagnosed at later stages and older ages?

METHODS

• A search for breast cancer patients using the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) between 2010-2015 was conducted.
• Patients were identified using CPT codes for simple mastectomy, radical mastectomy, or modified radical mastectomy.
• Demographic and outcome data were examined.
• Chi-square tests and Poisson regression were performed using STATA 14.0. The threshold for statistical significance (p value) was set at 0.05.

RESULTS

• Males and females have similar 30-day surgical outcomes after mastectomy
• The incidence of mastectomy type did not vary significantly between male and female patients.
• Male patients were significantly older, had higher ASA class, and were more likely to be obese (BMI>30), diabetic, and/or on dialysis at time of surgery (p<0.05)
• Males were less likely to require blood transfusions and had shorter LOS. (Table 1: 2)

CONCLUSIONS

• Analysis of the ACS NSQIP database between 2005 and 2010 revealed that male patients have more preoperative co-morbidities than females.
• However, despite this, males undergoing mastectomies have similar outcomes to females post-operatively.
• This is important for peri-operative planning in assessing surgical risk and patient counseling.
• Limitations: only 30 day NSQIP data, large database with risk of error or omission.

Demographic Category | Male, n (%) | Female, n (%) | P-value
--- | --- | --- | ---
Total | 1,198 (1.9%) | 62,619 (99.1%) | NS
Procedure | | | NS
Simple Mastectomy | 763 (64) | 42,068 (67) | NS
Radical Mastectomy | 29 (2) | 1,273 (2) | NS
Modified Radical Mastectomy | 406 (34) | 19,278 (31) | NS

Age | | | <0.05
18-30 | 67 (5.7) | 841 (1.4) | NS
31-50 | 190 (16) | 18,058 (29) | NS
51-70 | 560 (47.3) | 30,638 (49.4) | NS
71-90 | 368 (31) | 12,493 (20.1) | NS
Diabetic | 236 (19.7) | 7,632 (12.2) | NS
ASA class | | | <0.01
I,II | 635 (53) | 39,206 (62.7) | NS
III | 518 (43.3) | 22,352 (35.7) | NS
IV | 44 (3.7) | 1,006 (1.61) | NS
Dialysis- Dependent | 14 (1.17) | 197 (0.31) | NS
BMI >30 | 513 (43.2) | 22,314 (36) | NS

Table 1: Patient Demographics

Outcome | Male, n (%) | Female, n (%) | P-value
--- | --- | --- | ---
Death | 2 (0.17) | 97 (0.15) | NS
Any Morbidity | 315 (26) | 15,659 (25) | NS
Surgical Site Infection (SSI) | 45 (3.8) | 2,387 (3.8) | NS
Blood transfusion | 9 (0.75) | 1,116 (1.8) | 0.007

Length of Stay | | | <0.001
0-3 days | 1,155 (96.4) | 58,807 (93.9) | NS
4-14 days | 37 (3.1) | 3,649 (5.8) | NS
>14 days | 6 (0.5) | 158 (0.26) | NS
DVT/PE | 8 (0.67) | 261 (0.4) | NS

Table 2: Post-Operative Outcomes. NS= Not Significant

Resources:

Outcomes of Interest:

- All data points
- Male
- Female
- ASA class
- Diabetic
- Dialysis
- BMI
- Procedure Type
- Length of Stay
- Any Morbidity
- Surgical Site Infection (SSI)
- Blood transfusion
- Death
- Male
- Female