



## SWSC 2020 On-Demand Meeting Abstracts

### 7. EXPLORING THE EFFECT OF POST-MASTECTOMY COMPLICATIONS ON 5-YEAR SURVIVAL

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**Background:** Complications following mastectomy negatively affect patients and delay adjuvant therapies. The ramifications of post-operative complications on long-term survival are uncertain. We explored the effect of major complications and wound complications after mastectomy on 5-year survival.

**Methods:** We retrospectively reviewed a prospective database for patients undergoing mastectomy with and without reconstruction from 2010-14 for invasive carcinoma. Patients with in-situ carcinoma, Stage IV, or recurrent disease were excluded. Patient factors underwent univariate analysis. Major complications requiring return to the operating room (RTOR) and all wound complications were then analyzed using the Kaplan-Meier method for their effect on 5-year overall (OS) and disease-free survival (DFS).

**Results:** A total of 378 patients with mean age of 58 years (range 22-90) and BMI of 26.6 (range 16.6-48.8) underwent nipple-sparing (54%), skin-sparing (41%), or simple (5%) mastectomy for Stage I (43%), II (37%), and III (20%) disease: 75% of pathology was invasive ductal carcinoma, 71% of patients were ER/PR positive/Her2 negative, 16% were Her2 positive, and 13% were triple negative. Eighty-four patients (22%) underwent neoadjuvant therapy. Most had bilateral procedures (53%) with contralateral prophylactic mastectomy, and 221 patients (59%) underwent reconstruction. Median follow-up was 5 years. Major complication requiring RTOR occurred in 91 patients (24%) due to hematoma, infection, flap/nipple ischemia, wound breakdown, or persistent seroma. Wound complications occurred in 140 patients (37%). Factors on univariate analysis associated with major complication included young age ( $p < 0.001$ ), active smoking ( $p = 0.008$ ), reconstruction ( $p < 0.001$ ), and bilateral procedure ( $p < 0.001$ ). Patients with triple negative cancer had decreased overall and disease-free survival (OS = HR 4.4, 95% CI 1.6-11.9,  $p = 0.003$ ; DFS = HR 5.1, 95% CI 1.5-17.1,  $p = 0.008$ ). Only 9 total patients had a major complication with RTOR following mastectomy alone, limiting the calculation of a corresponding hazard ratio (HR). Overall, major complication with RTOR did not significantly affect OS or DFS among those with mastectomy and reconstruction (OS = HR 1.02, 95% CI 0.37-2.82,  $p = 0.96$ ; DFS = HR 0.76, 95% CI 0.29-1.99,  $p = 0.57$ ). Wound complications also showed no significant effect on OS or DFS following mastectomy (OS = HR 0.84, 95% CI 0.33-2.15,  $p = 0.7$ ; DFS = HR 0.72, 95% CI 0.16-3.15,  $p = 0.66$ ), or mastectomy with reconstruction (OS = HR 0.46, 95% CI 0.16-1.32,  $p = 0.14$ ; DFS = HR 0.90, 95% CI 0.37-2.21,  $p = 0.82$ ).

**Conclusion:** Despite the negative impact of major complications after mastectomy on patient outcomes and timing of adjuvant therapies, our data show that such complications bear no significant impact on 5-year overall or disease-free survival.