Chest and Upper Body Morbidity Following Postmastectomy Breast Reconstruction

Colleen McCarthy, MD, MS, Babak Mehrara, MD, Tua Long BA, Nina Kropf, MD, Ann Klassen, PhD, Amie Scott, BSc, Alison Price, BSc, Joe Disa, MD, Peter Cordeiro, MD, Andrea Pusic, MD, MHS

Aims: The surgical removal of a breast (mastectomy) for the treatment of breast cancer may have long-term implications for both a breast cancer survivor’s physical and mental well-being. While the development of breast numbness and phantom breast sensations following mastectomy is well-known, relatively little is known about physical morbidity following postmastectomy breast reconstruction such as pain and loss of mobility. The primary objective of this study is thus to evaluate the level of physical morbidity experienced following mastectomy alone, postmastectomy tissue expander/implant reconstruction, and autogenous tissue reconstruction.

Methods: A cross-sectional survey was administered to a sample of women who had undergone mastectomy with or without reconstruction at least one year but no more than 5 years ago. Chest and upper body morbidity was evaluated using the BREAST-Q, a patient-reported outcome measure specifically designed to measure quality of life among breast surgery patients. An ANCOVA comparing physical well-being across three types of breast surgery was performed. Covariates of morbidity were included to control for baseline differences in subgroup populations.

Results: A total of 452 women were sent a questionnaire booklet and completed questionnaires were received from 308 women (68.1% response rate). There was an overall difference in physical morbidity attributable to surgical treatment (p=0.004). Patients who underwent autogenous tissue reconstruction had the highest (best) mean physical well-being. There was no statistically discernable difference between the groups of women who had implant-based reconstruction compared with those who had mastectomy without reconstruction (p = 0.552).

Conclusions: It appears, based on these findings, that women who undergo immediate breast reconstruction with autogenous tissue experience significantly less chest and upper body morbidity compared to those who undergo either mastectomy alone or mastectomy with implant-based reconstruction. Importantly, it appears that there is no clinically meaningful difference in long-term physical well-being following mastectomy alone and tissue-expander/implant reconstruction. This information can be used to facilitate clinical-decision making, validate individual experiences for breast cancer survivors and inform future innovation to decrease the long-term physical morbidity associated with breast cancer surgery.