

Contralateral prophylactic mastectomy and quality of life: answering the unanswered questions?

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Rates of contralateral prophylactic mastectomy (CPM) among women with early-stage breast cancer continue to rise in the United States, despite a lack of evidence for any survival benefit associated with this surgery (1,2). While many studies have robustly evaluated medical outcomes, including survival and risk of contralateral breast cancer, less is known about the psychosocial impact of CPM in breast cancer patients who undergo this procedure. In a recent publication, Hwang and colleagues (3) sought to examine whether quality of life (QOL), as measured by the BREAST-Q (4), a validated breast surgery specific patient reported outcome instrument, differed between women who chose CPM *vs.* those who underwent unilateral mastectomy.

The results of this study are reassuring in that the women surveyed appeared to do well irrespective of the surgery they chose. CPM was not associated with worse physical or sexual well-being, and while breast satisfaction and psychosocial well-being were statistically better in women who had CPM *vs.* mastectomy alone, as noted by the authors, the differences between the two groups were small, and likely not clinically significant (3). Similarly, Koslow *et al.* (in a study that also assessed post-surgical outcomes with the BREAST-Q), found that among women who had implant-based reconstruction, breast satisfaction was higher among those who had CPM compared to women who had mastectomy alone, however psychosocial, physical, and sexual well-being were similar between the two surgical groups (5).

Given the cross-sectional design of their study, Hwang *et al.* were unable to evaluate longitudinal changes in QOL over time; however in analyses stratified by time-since diagnosis, they did not find any differences in psychosocial

well-being between surgical groups. As such the authors concluded that psychosocial functioning among women who had CPM was similar to those who had mastectomy alone, regardless of the length of time that had passed since their surgery (3). Importantly, psychosocial functioning trended positively over time for all patients, independent of their choice for CPM, which is good news for long-term breast cancer survivors (3).

Findings from this large study suggest that the choice to undergo CPM does not negatively affect QOL in what can be considered as relatively long-term follow-up (women who responded to the survey were a median of 4.6 years post-surgery), however several important questions remain unanswered about whether and how short-term QOL is affected. Because CPM is a more extensive surgery (often accompanied with reconstruction) with a higher risk of complications (6,7), both physical and psychosocial functioning have the potential to be more acutely and adversely impacted in the weeks and months immediately after surgery and through an extended recovery period. Although it is unknown how prevalent complications were among study participants, Hwang *et al.* reported a strong association between QOL and both major and minor surgical complications; with reduced physical, psychosocial, sexual functioning, and breast satisfaction reported among those who experienced a complication (3). While the authors also found reconstruction to be associated with higher breast satisfaction (higher than that associated with CPM) (3), findings from a recent study suggest that the specific type of reconstructive surgery can be an important factor when it comes to satisfaction with how the breast looks after surgery. Jagsi *et al.* reported that among

women who had radiation, those who had implant-based reconstruction were less satisfied with cosmetic outcomes of their reconstructive surgery, compared to women who had autologous reconstruction (8).

The study conducted by Hwang and colleagues provides insight into the psychosocial experience of women who choose CPM and importantly, sets the stage for future research that should delve more deeply into the impact of CPM on both short-term and long-term QOL. Additional areas that would benefit from further investigation include expectations surrounding surgical outcomes, e.g., how women think they are going to look and feel after surgery, and whether these expectations are being met. The availability of prospectively collected information at multiple time points, both pre- and post-surgery, would enable a comprehensive assessment of the trajectories of both physical and psychosocial functioning over short- and long-term follow-up. In addition, more specific data pertaining to other post-surgical issues, including musculoskeletal and postural-related problems, is also critical to gain a more nuanced understanding of the burden and time course of the physical sequelae experienced by some women following mastectomy. Collectively, this information could help identify those women at risk for adverse outcomes following surgery, facilitating early intervention and support for those breast cancer survivors who would benefit most.

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Footnote

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