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Contralateral prophylactic mastectomy: What should not be forgotten to improve communication between clinicians and patients!

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I read with interest the work of Manne and colleagues [1] and would like to add some useful information for the surgeons and patients in the decision-making process about controlateral prophylactic mastectomy (CPM).

The rationale for CPM in a patient who has had breast cancer is to reduce the risk of contralateral breast cancer (CBC) and possibly improve survival and quality of life. Other reasons for undergoing a CPM include relative ease of follow-up, reduction of anxiety for occurrence of a second breast cancer, and desire for symmetry that can be achieved with bilateral mastectomies and reconstruction.

However, regarding the risk of CBC, patients with a unilateral sporadic breast tumor have a low-modest risk of developing CBC (estimated to be 0.5–1.0 percent/year cumulative over their lifetime) and most women will never develop it [2]. Conversely, the risk of CBC is very high (five-years contralateral breast cancer rates of 10–25 percent) in patients with breast cancer who carry BRCA mutation (or others germline genetic mutation conferring a high risk for breast cancer) [2,3].

Regarding the improvement of survival, many retrospective and observational studies do not suggest an overall survival benefit for sporadic breast cancer patients who undergo CPM [4–6]. Conversely, evidence shows that CPM may improve disease-free and overall survival in germline genetic mutation carrier; a retrospective review and matched analysis of 105 women with breast cancer and a deleterious *BRCA* mutation undergoing CPM had a greater ten-year survival compared to *BRCA* carriers with breast cancer who did not undergo CPM (89 versus 71 percent). After adjusting for potential confounders, such as oophorectomy, grade and stage of cancer, and specific gene mutation, CPM continued to provide a survival advantage (HR 0.37, 95% CI 0.17-0.80) [7].

Regarding quality of life, some studies show that both unilateral therapeutic mastectomy and CPM patients reported high satisfaction with their surgical decisions, despite different reasons for their respective surgeries [2].

Manne and colleagues conclude in their paper that “decisional conflict is elevated in a subset of patients considering CPM. A more well-informed decision may be fostered by a comprehensive discussion about CPM with the patient's clinician, fostering self-efficacy in managing cancer worry, and helping patients understand their motivations for CPM” [1].

I think that it would be useful to include the following topics in a discussion about this procedure:

- Possible oncological failure because risk-reducing mastectomy does not completely eliminate the risk of developing breast cancer; there is always a residual risk of about 5% to be related to the possible presence of residual glandular tissue or ectopic breast tissue [3,4].
- Surgical morbidity with overall complication rates of 15–20% such as ischemia of the skin and/or of the areola-nipple complex, haematomas, infections, implant failure, partial/total autologous flap loss; women with breast cancer undergoing CPM have nearly a twofold increased risk of complications compared with women undergoing unilateral mastectomy. Besides, in a considerable percentage of cases after the prophylactic mastectomy, there is also the need to resort to further aesthetic/plastic procedures to correct some imperfections or repair surgical complications [3,4,8].
- Presence of sequelae such as the loss of sensitivity of the areola-nipple complex, possible paresthesias, painful sensations and the need for re-adaptation to a different body image [3,4].

The surgeons should always bring these issues up although some patients may already be aware of these risks and not really consider them as important.

However, in consideration of the benefits and the problems that CPM may involve, I think that breast conservation therapy or unilateral therapeutic mastectomy should be considered the first step and an effective local treatment option for patients with unilateral sporadic breast cancer; while CPM should always be offered to patients who carry a germline genetic mutation as “a good choice” to reduce their high risk of a second breast cancer and to improve survival. This choice should be taken, case by case, in specialized breast centers with a dedicated risk team. A personalized multidisciplinary path should guarantee an accurate genetic and clinical counselling, adequate psychological support and detailed information about all alternative risk management strategies to help the patient to increase her preparedness and overcome decision-making conflict. However, the decision to undergo CPM often remains an individual patient’s choice based on the management of breast cancer, the fear of recurrence, the anxieties regarding follow-up imaging and the desire for symmetry.

Conflict of interest

All the authors declare no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials

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