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MAMMAPLASTY FOR SYMMETRY IN BREAST RECONSTRUCTION AND HISTOLOGIC ASSESSMENT

We read with interest the article by Horo and colleagues¹ about the prevalence of borderline lesions and in situ/invasive cancer in specimens of the contralateral breast (CB) in patients with breast cancer. As a multi-professional breast cancer team, it has been our impression that increasing consideration has been focused on reconstructive techniques, and mammoplasty remains a useful and important procedure. Whereas satisfactory results may be obtained with all reconstructive procedures, in our previous experiences,²⁻⁴ mammoplasty leads to a better overall outcome in patients with breast ptosis/macromastia. Besides these aesthetic benefits, one of the main advantages is the possibility of examining the CB.⁵ Thus, this paper is relevant and, again, illustrates the

value of these important issues.

Although many of the data described are valuable and interesting, the clinical relevance to be drawn from the results and discussion deserves clarification. As the authors point out, few authors have assessed the incidence of occult lesions in this particular scenario of mammoplasty with a treated cancer of the CB. The authors concluded that no invasive/in situ carcinoma was detected. However, in the limited sample of 77 patients who underwent a mammoplasty of the CB, normal results were observed in 45.5%, benign lesions in 38.9% and borderline lesions in 15.6% of patients. Besides the potential bias regarding the differences in patient populations, the absence of breast cancer detected in this sample can be attributed in part to the limitation of the number of patients included in the study and some bias related to the retrospective design. In our experience, 4.3% of patients who underwent immediate mammoplasty for conservative breast surgery reconstruction received a diagnosis of breast cancer on the contralateral breast (3 patients with ductal carcinoma in situ and 2 with invasive lobular carcinoma).⁵ Both cases of lobular carcinoma were diagnosed by intraoperative frozen sections and showed favourable characteristics (small diameter/estrogen receptor positivity). Thus, it has been our impression that the risk in this particular scenario increases in patients with previous breast cancer. In addition, patients with previous breast cancer are at higher risk for new contralateral cancer. Usually, it is expected that the incidence of metachronous breast cancer (MBC) ranges from 1% to 12%.⁵ One might surmise that this ample incidence deviation relates to differences in follow-up, methods of detection, histologic techniques and the inclusion of noninvasive tumours. Additionally, a young age at the time of the first breast cancer and a longer survival time may increase the risk for MBC. In our sample, almost 8.5% of patients had an MBC detected during

follow-up. Review of the cancer characteristics revealed that most cancers were at an early stage and all were unifocal tumours. Regarding the histologic type, about 65% of patients had invasive ductal carcinoma and almost 30% had a family history of breast cancer. Another relevant point is related to the period between the diagnosis of the first tumour and the MBC. In our study, more than 80% of these tumours appeared within 5 years of the original one. Despite these data, the MBCs in 2 patients were diagnosed more than 7 years after the first breast cancer, which highlights the importance of longer follow-up periods to estimate the real incidence of MBC and the appropriate treatment.

Finally, another important issue is related to the influence of the mammoplasty techniques in the follow-up. In spite of the aesthetic benefits, do the authors have difficulties with surveillance for cancer in breasts that have undergone reduction mammoplasty? This question refers particularly to the distortion of normal architecture and the production of microcalcifications secondary to fat necrosis, hematoma or fibrosis. In our experience, fat necrosis and local tissue distortion were observed in almost of 6% of patients who had CB mammoplasty. Although mammographic discrimination between tumour recurrence/MBC and fat necrosis can be differentiated in major cancer centres, we advocate for a careful surveillance and invasive diagnosis to elucidate this important issue.

Immediate CB mammoplasty in association with oncologic breast surgery is not a new concept but is becoming increasingly accepted by oncologic surgeons. The technique provides an opportunity for diagnosis of breast cancer risk lesions, and post-operative adjuvant chemotherapy is not delayed. It has been our impression that there is evidence of reduction of MBC during follow-up, and we totally agree that a larger number of patients are necessary for significant conclusions. Thus, additional studies of breast

cancer incidence after mammoplasty in higher-risk patients are necessary to assess the possible impact on MBC prevention and the overall survival of these patients. Although this study has limitations concerning its analyses and conclusions, the authors described important aspects that are relevant to the informed treatment decision-making process.

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DRS. HORO, ACKER AND BODY REPLY

We read with interest your reaction to the article on mammoplasty and histologic results.¹ The objective of this work was to show the opportunity that the histologic assessment of the glandular tissue offered during mammoplasty for symmetry in the search for occult lesions in the opposite breast in these high-risk women.

We reported that we didn't find in situ or invasive carcinomas, but rather borderline (15.6%), benign (38.9%) and normal (45.5%) lesions. We also agree that eventual bias may have existed, and we reported this in our paper.

Other authors found carcinomas even in women who didn't present high risk for breast cancer.² Yet it is difficult to compare these series because they concern different populations with nonstandardized preoperative diagnostic means. We insist, on the other hand, like most authors, on the importance of such verification in these high-risk women.

We think that an effective preoperative management must help reduce the impact of these subsequent cancers.

Concerning the later occurrence of this type of metachronous cancer in the contralateral breast, we assessed their impact in 273 women who had undergone a breast reconstruction³ in our department. During a mean follow-up of 6.6 years we noticed a prevalence of 1.8% with a cumulated impact of 4.6 person-years. The histologic cancers were ductal and invasive in 80% of cases. Studies on cancer of the contralateral breast are disparate, and they often raise methodologic problems. We notice diversity in the definition of cases among studies and a variability of study populations and duration of follow-up. Despite these methodologic biases, all the studies are unanimous on the fact that a cancer developing in one breast increases the risk of cancer in the contralateral breast. The risk is important in the first 5 years after the initial treatment.⁴ The 5 contralateral cancers detected in our series were discovered after a mean time of 6.3 years.

Mammography remains the pillar for detecting contralateral breast cancer; however, the risk of occult cancer varies from 4% to 24%.⁵ Besides, the impact of mammographic surveillance of the opposite breast on mortality reduction remains to be proven.⁶ Moreover, the benefit of mammography during the surveillance of the contralateral breast in young women is controversial (low sensitivity and

specificity, and risk of radio-induced cancers). In our series, mammography helped detect 80% of contralateral cancers.

The positive predictive value of MRI-induced biopsies varies from 49% to 80% in the literature, which makes clinicians advise against prophylactic mastectomy for lesions detected by MRI, particularly because the specificity of MRI remains low, and the impact of the diagnosis of the contralateral lesions on patients' survival is still not well known.⁵

The probability of locating a tumour in the contralateral breast after a breast reconstruction is high. The diagnosis of a relapse must not be delayed by mammoplasty scars and glandular resection can constitute an opportunity to detect occult lesions.

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