Early complications after subcutaneous mastectomy and immediate breast reconstruction with silicone prosthesis

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Background: Breast reconstruction with silicone prosthesis following subcutaneous mastectomy (SCM) has been shown to have a salutary effect on the overall psychological well-being of women being treated for breast cancer and at the same time does not threat the oncological safety. The purpose of this study was to evaluate the incidence of early local complications after immediate breast reconstruction with a subpectorally placed silicone prosthesis following SCM.

Materials and Methods: Prospective study was performed on a consecutive series of 64 breast reconstructions in 63 patients over a one-year period. All complications during the six weeks after surgery were recorded. 12 prostheses were implanted after neoadjuvant chemotherapy and in all other cases surgery was the primary treatment for cancer.

Results: The overall complication rate was 22% (14), and in 3.2% (2) cases explantation of prosthesis was done due to major skin flap necrosis and prolonged seroma formation. The most frequent complications were prolonged seroma formation 6.3% (4), minor skin necrosis 4.7% (3) and minor infections 4.7% (3). Haematoma, epidermolysis, major infection and major skin necrosis each occurred in 1.6% (1) patients. Neoadjuvant chemotherapy was not associated with higher rate of complications.

Conclusions: Immediate reconstruction with silicone prosthesis after SCM is a safe and effective procedure and has a low morbidity rate. Neoadjuvant chemotherapy is not a risk factor for early postoperative complications.

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Comparing two objective methods for the aesthetic evaluation of breast cancer conservative treatment

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Background: Two objective methods (software) were recently developed for the objective evaluation of the aesthetic results of Breast Cancer Conservative Treatment (BCCT): the breast cancer conservative treatment cosmetic results (BCCTcore) (Cardoso JS, Cardoso MJ. Artif Intell Med, 2007) and the breast analyzing tool (BAT) (Fitzl et al. The Breast, 2007). Both try to overcome the lack of reproducibility of subjective methodologies traditionally used in this type of evaluation. The BCCTcore and the BAT make use of a face-only photographic view of the patient. The BCCTcore analyses several parameters related to asymmetry, color differences and shape appearance in consideration of the measurements. The purpose of this study is to compare the performance of the two methods regarding the aesthetic evaluation BCCT.

Material and Methods: Digital pictures of 59 PORTO patients and 69 VIENNA patients were submitted to BCCTcore and BAT analyses and were additionally evaluated subjectively by two different panels with the Harris scale. The PORTO photographs were evaluated by an international panel of 23 experts, the VIENNA photographs were evaluated by 4 students and 2 breast cancer specialists. The agreement of the two software programmes with the consensus over the 119 cases was calculated using the kappa (k), weighted kappa statistics (wk) and error rate (er). A kappa score of 0 was considered poor agreement; 0.01-0.20 slight agreement; 0.21-0.40 fair agreement; 0.41-0.60 moderate agreement; 0.61-0.80 substantial agreement; 0.81-0.99 almost perfect agreement; and 1.00 perfect agreement.

Results: Regarding the PORTO photographs the agreement was better between the BCCTcore and the consensus (k = 0.71; wk = 0.78; er = 0.14) than the one obtained with the BAT (k = 0.35; wk = 0.41; er = 0.51) while there was almost no difference between the BCCTcore and the BAT with the VIENNA images, with both methods presenting similar values of agreement with the subjective classification. When analysing results for the photos, the BCCTcore performs slightly better (k = 0.56; wk = 0.64; er = 0.20) than the BAT (k = 0.39; wk = 0.46; er = 0.42) for all the studied parameters.

Conclusions: The BCCTcore performed significantly better than the BAT in the PORTO patients while the differences were shortened when the two sets of photographs were evaluated due to the similar result in the VIENNA patients. The results show that inclusion of multiple parameters in the software analyses could improve results.