

Tips and Tricks for Successful Breast Reconstruction Following Radiotherapy Using the Implant-Enhanced Latissimus Dorsi Flap

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Abstract

Introduction: Adjuvant radiotherapy poses the most serious challenges for surgeons who must choose both the time and the optimal reconstructive method for radiotherapy patients. One of the postmastectomy reconstructive techniques, in patients subjected to radiotherapy, is the method that combines the own tissue with the alloplastic material, the latissimus dorsi flap and the breast implant. This method is highly versatile and can be safely applied to radiotherapy patients.

Materials and Methods: Between April 2014 and April 2020, we performed 219 breast reconstructions of which 156 cases were reconstructed with latissimus dorsi flap and implant. The main elements studied were: patient selection for the above mentioned technical procedure, indication of operative moment and type of intervention, preoperative measurements and sketching, minimal scar of the donor area, decision to perform simultaneous symmetrization, simultaneous prophylactic mastectomy with immediate reconstruction, cosmetic appearance, stability and evolution of results over time. The follow-up period was 1 year for all patients, while in the case of some patients up to 5 years.

Results: This technique could be applied in all cases with radiotherapy, regardless of the size of the contralateral breast, the technique allowing the shaping of breasts of different volumes. The cosmetic appearance has improved over time, the breast having characteristics similar to the healthy one - shape, natural ptosis, consistency, well-defined inframammary groove. Simultaneous symmetrization by breast reduction, mastopexy with or without implant or breast augmentation led to superior results and a high degree of patient satisfaction. The average duration of recovery was 4 weeks, with rapid social and professional reintegration of patients. The small number of complications - 1 total flap necrosis, 3 cases of partial necrosis, 5 seromas, with a small number of reinterventions - 4, make this method one of the safest in the difficult context of the radiotherapy treatment of prepectoral area.

Conclusions: Careful planning of breast reconstruction with the help of the latissimus dorsi flap in combination with the breast implant, the meticulous technique determines stable results over time, with superior cosmetic appearance of the breasts reconstructed with the aid of this method, while minimizing the risk of complications. Thus, the quality of life of patients is much improved, and the social and professional reintegration is relatively fast.

Key words: latissimus dorsi flap, breast reconstruction, breast symmetrisation, radiotherapy