



Safety Of Neoadjuvant Chemotherapy On Women Undergoing Breast Cancer Surgery And Immediate Reconstruction With Latissimus Dorsi Flap And Silicone Implants

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Background:

The latissimus dorsi (LD) flap in immediate breast reconstruction (IBR) is a relatively simple procedure using a flap with a reliable and consistent vascularity. Neoadjuvant chemotherapy (NC) is classically administered to patients with advanced cancer to improve local surgical conditions, raise the possibility of conservative surgery and observe the response of the disease to the chemotherapy regimen. However, most chemotherapeutic agents are cytotoxic and may increase the risk of postoperative complications. This study evaluated the effects of NC on women with cancer who underwent breast cancer surgery and IBR with LD flap and silicone implants.

Methods:

This is a retrospective, observational, case-control study approved by the Institutional Research Ethics Committee. Data were collected from medical records of 148 patients with cancer who had undergone breast cancer surgery and IBR with LD flap and silicone implants from August 2010 to December 2016. Forty-eight patients received NC (study group) and 102 patients underwent primary surgical treatment (control group). Surgical procedures were performed in a standardized manner by the same surgical team. Postoperative complications were evaluated up to 90 days after surgery.

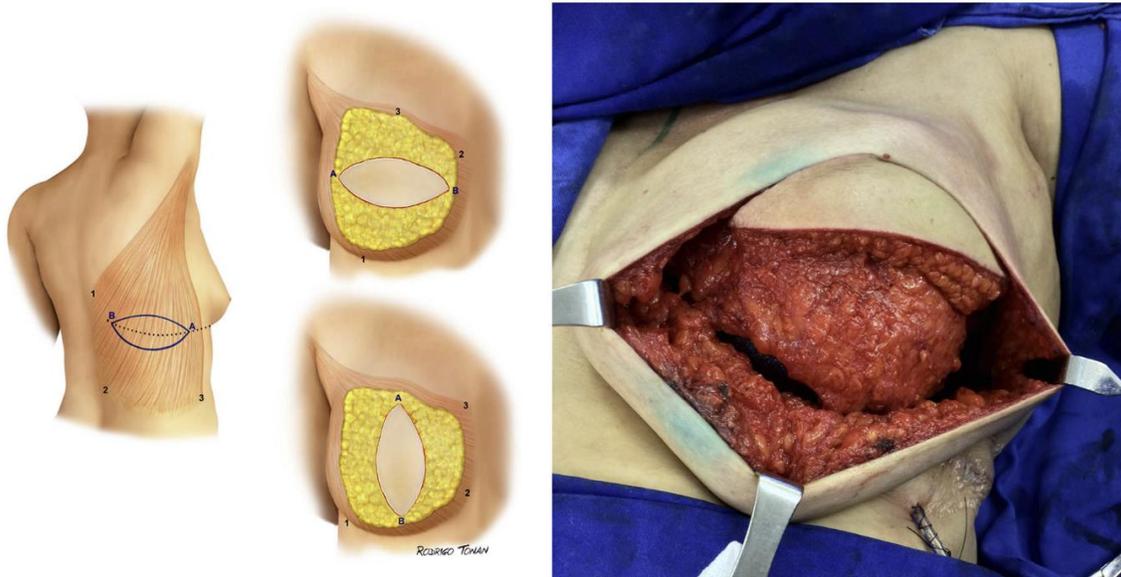


Diagram (left) and photograph (right) showing the latissimus dorsi flap transposed to cover the defect and create the implant pocket

Results:

Patients who received NC were younger ($p = 0.005$), had a significantly ($p < 0.05$) more aggressive disease, advanced stage-cancer and required a more extensive cancer surgery. Three patients (6,5%) in the study group and 4 patients (3,9%) in the control group had a major postoperative complication (required rehospitalization, revision surgery, or prolonged hospitalization) with no significant difference between groups ($p = 0.677$). Major complications included 2 cases of hematoma requiring surgical drainage, 2 cases of flap necrosis requiring debridement and one of them, removal of the silicone implant, 2 cases of major wound dehiscence and 1 case of major skin flap necrosis requiring debridement and removal of the silicone implant. The study group was also not associated with an increased risk of postoperative surgical minor complications, treated conservatively on an outpatient basis ($p = 0.758$). They included seroma formation in the dorsal region (29.7%), minor skin flap necrosis (10.8%), wound dehiscence (14.9%) and infection (0.7%). Postoperative clinical complications associated with the surgical procedure were observed in 4 patients (2,7%) with no significant difference between groups ($p = 0.588$).

Conclusions:

Breast cancer surgery followed by IBR with LD flap and implants is a safety procedure in patients who received NC.