

Breast Reconstruction with Implant Two Years after Breast Cancer Treatment: Physical and Emotional Impact on the Patient's Holistic Recovery. Case Report

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ABSTRACT

Breast reconstruction is an essential component of the comprehensive approach to patients treated for breast cancer—not only due to its aesthetic and functional benefits, but also for its positive impact on self-esteem, body image, and quality of life. This report describes the case of a 47-year-old patient diagnosed with infiltrating ductal carcinoma of the left breast, treated with neoadjuvant chemotherapy, modified radical mastectomy, and adjuvant radiotherapy. Due to poor quality of the surgical bed following radiotherapy, an initial autologous split-thickness skin graft was performed to improve tissue quality. Two years later, after a favorable multidisciplinary evaluation, definitive breast reconstruction was carried out using a silicone implant, along with contralateral mastopexy for symmetry. Postoperative evolution was satisfactory, with no surgical complications and a significant improvement in body image perception and emotional well-being. This case highlights the importance of individualized reconstructive treatment that considers both clinical and emotional factors, and demonstrates that delayed reconstruction with an implant can be a safe and effective strategy for achieving holistic recovery in breast cancer survivors.

KEYWORDS: Breast reconstruction, breast cancer, breast implant, dermoepidermal graft, delayed reconstruction, body image, quality of life, oncologic plastic surgery.

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INTRODUCTION

Breast cancer is one of the leading causes of morbidity among women worldwide—not only because of its incidence but also due to the physical and emotional sequelae it leaves

behind after treatment. Despite significant advances in early diagnosis and oncologic therapies, mastectomy remains a necessary surgical intervention in a considerable number of cases. While oncologically effective, mastectomy often leads

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to a profound alteration in body image, which can affect self-esteem, femininity, sexuality, and overall quality of life.¹

Breast reconstruction arises as a therapeutic strategy aimed not only at restoring anatomy but also at emotional and psychosocial rehabilitation for women who have faced cancer. Among the various available techniques, reconstruction with a breast implant has become a widely used option due to its lower surgical complexity, shorter recovery time, and good aesthetic outcomes—especially in patients who have not received radiotherapy or only received limited exposure.^{1,2}

In many cases, breast reconstruction is not performed immediately at the time of mastectomy, either due to medical indications, personal decisions, or limited access to a multidisciplinary team. In such scenarios, delayed reconstruction becomes a valid and safe option, provided that there is appropriate oncologic evaluation, clinical stability, and explicit patient desire. This type of reconstruction can be performed months or even years after cancer treatment and still provide significant functional and psychological benefits.³

Several studies have shown that breast reconstruction—even when delayed—can improve the sense of overall well-being, reduce levels of anxiety and depression, and promote social reintegration. However, challenges remain regarding equitable access to these interventions, long-term follow-up, and the systematic integration of emotional care into oncologic protocols.⁴

In this context, we present the clinical case of a patient who underwent breast reconstruction with an implant two years after completing oncologic treatment for breast cancer. The objective of this report is to describe the patient's clinical, surgical, and emotional process, and to reflect on the importance of a comprehensive approach that considers not only physical recovery but also the psychological and social impact of the intervention. The case also emphasizes the need for an interdisciplinary, patient-centered approach that provides empathetic and effective support throughout recovery after a cancer diagnosis.^{5,6,7}

CLINICAL CASE

We present the case of a 47-year-old female patient with a gynecological-obstetric history of two full-term pregnancies, no relevant personal medical history, non-smoker, and no family history of breast cancer. She sought medical attention in March 2021 for a palpable nodule in the upper outer quadrant of the left breast, accompanied by mild skin

retraction. Mammography and breast ultrasound revealed a suspicious solid mass, BI-RADS category 5. A core needle biopsy confirmed the diagnosis of invasive ductal carcinoma. Preoperative staging via MRI and CT scan revealed a T2 lesion with ipsilateral axillary lymph node involvement (N1) and no evidence of distant metastasis (M0), classified as clinical stage IIB (T2N1M0). Neoadjuvant chemotherapy was initiated using the AC-T regimen (doxorubicin, cyclophosphamide, followed by paclitaxel), resulting in partial tumor volume reduction. In October 2021, the patient underwent left modified radical mastectomy with level I and II axillary lymph node dissection, achieving negative surgical margins.

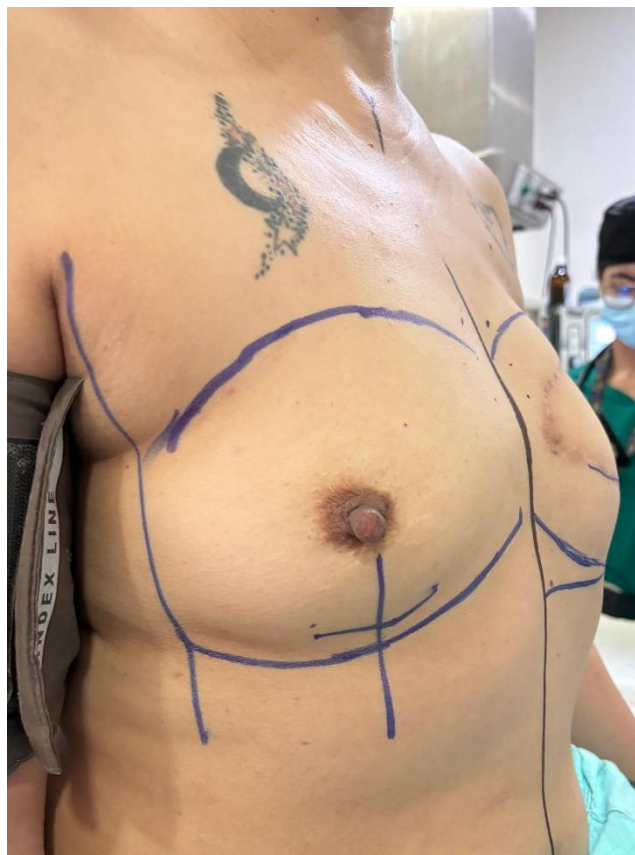
Due to pathological risk factors (lymphovascular invasion and positive lymph nodes), adjuvant radiotherapy was indicated and completed in December 2021, with a total dose of 50 Gy to the left chest wall and axillary lymphatic chains. As a result of the radiotherapy, the surgical bed presented with fibrosis, scar retraction, and decreased skin elasticity—conditions that were not suitable for immediate implant placement.

In January 2022, an initial reconstructive procedure was performed to improve the local tissue condition. An autologous dermoepidermal graft (harvested from the abdominal area) was used to cover the remaining skin defect and to provide a more favorable environment for future reconstruction. The graft integrated well, with no postoperative complications such as necrosis, infection, or dehiscence. The patient was discharged in good general condition and continued regular follow-up in oncology, with no signs of local or distant recurrence.

During this time, the patient consistently expressed a desire to complete her breast reconstruction, driven by the emotional impact of body asymmetry. Despite having successfully overcome cancer treatment, she reported decreased self-esteem, difficulty with body image, and avoidance of social and intimate situations. She was referred to psycho-oncology services, where she received therapeutic support during the waiting period.

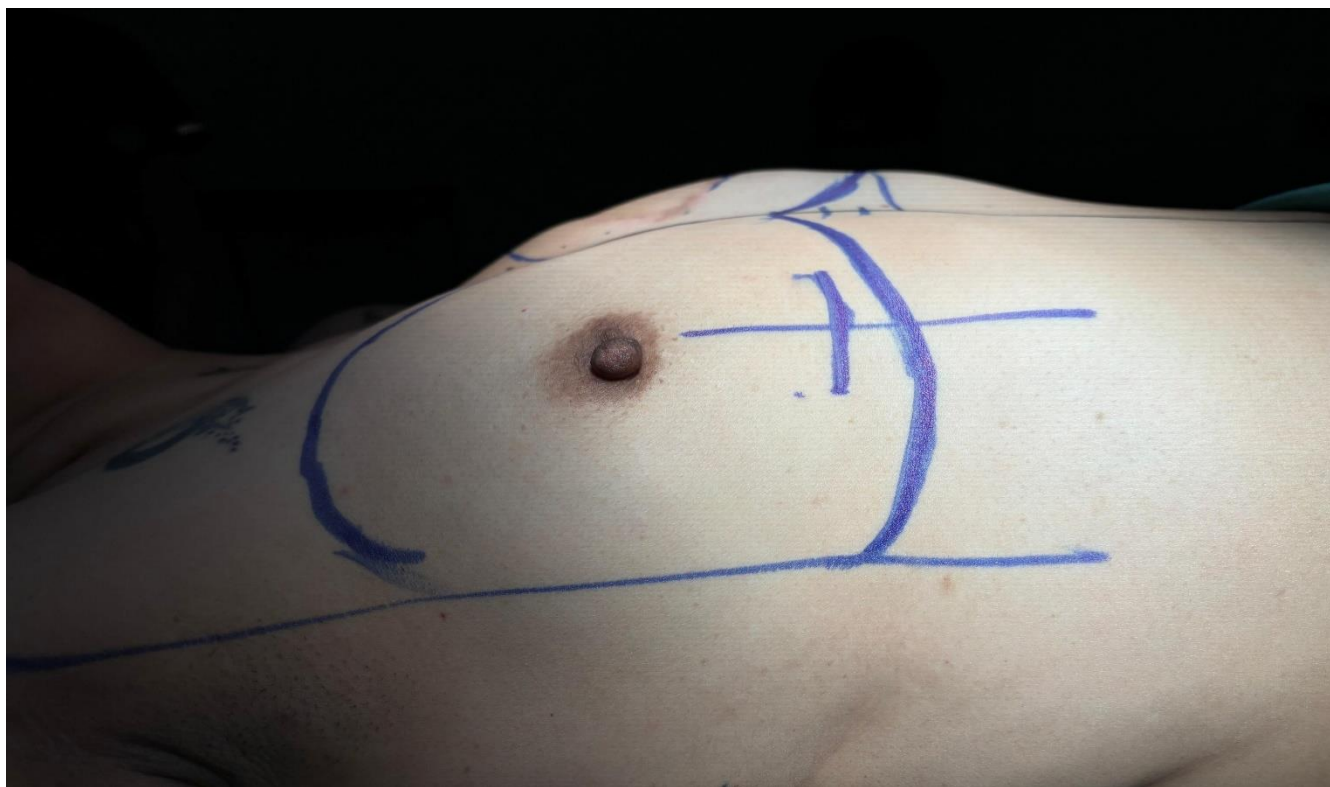
In January 2024, after two years of disease-free follow-up, the multidisciplinary team—consisting of medical oncology, surgical oncology, plastic surgery, and psychology—carried out a comprehensive evaluation. The patient was deemed a suitable candidate for definitive breast reconstruction with implant, given her good general health, emotional stability, and improved local tissue quality after the previous graft.

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Figures 1,2: Images prior to the surgical event.





Figures 3,4,5: Surgical marking.

The definitive reconstructive surgery was performed in February 2024. A 350 cc anatomical textured silicone implant was placed in a submuscular plane via an inframammary approach. Due to contralateral breast asymmetry and mild ptosis, a symmetrizing mastopexy was also performed on the

right breast. The procedure was uneventful, and the postoperative course was favorable, with no signs of infection, hematoma, or capsular contracture during initial follow-up.



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Figures 6,7,8,9: Immediate postoperative images.

At the three-month postoperative check-up, the patient showed satisfactory physical and emotional recovery. She was pleased with the aesthetic outcome, stating that she felt more confident, reconnected with her femininity, and noted a significant improvement in self-esteem. Clinical interviews and quality-of-life assessments (including the BREAST-Q reconstruction module) demonstrated substantial

improvements in areas such as body satisfaction, psychological well-being, and perceived health.

Currently, six months post-reconstruction, the patient continues with regular medical follow-up and remains disease-free. Her experience underscores the importance of viewing breast reconstruction not only as a surgical procedure but as a key component in the comprehensive recovery of women who have undergone breast cancer treatment.



Figures 10,11: Images 3 days after the surgical event.



Figure 12: Image 3 days after the surgical event.

DISCUSSION

Breast reconstruction following breast cancer treatment is a surgical intervention with profound physical, emotional, and social implications for patients. This case illustrates a staged reconstructive strategy, prioritizing oncologic safety and proper preparation of the surgical bed before definitive implant placement—within a patient-centered approach.^{8,9}

The patient initially received multimodal treatment including chemotherapy, modified radical mastectomy, and radiotherapy. While effective from an oncologic standpoint, such treatment often compromises tissue quality, making immediate implant-based reconstruction difficult, especially in irradiated patients. Radiation therapy can cause fibrosis, reduced skin elasticity, impaired lymphatic drainage, and increased postoperative complication risks such as necrosis, infection, or implant loss.¹⁰

Therefore, a two-stage delayed reconstruction approach was selected, starting with an autologous dermoepidermal graft to improve surgical bed conditions and facilitate safer, more aesthetically favorable definitive reconstruction in the future. This strategy aligns with several clinical guidelines

recommending individualized reconstruction timing based on prior treatments and tissue condition.¹¹

Placing the implant two years after oncologic treatment allowed irradiated tissues to stabilize and recover, reducing the risk of complications. The delay also enabled more robust emotional and psychological preparation, supported by therapeutic counseling, leading to better adaptation and satisfaction with the surgical result.

From a psychosocial perspective, numerous studies have shown the benefits of breast reconstruction on self-esteem, body image, sexuality, and quality of life among breast cancer survivors. In this case, the patient reported a positive perception of the procedure and significant emotional improvement, as evidenced by clinical interviews and structured questionnaires. Tools like the BREAST-Q, which assess multiple validated dimensions of the reconstruction experience, allow for objective measurement of perceived improvements in health and body image.

This case emphasizes the value of interdisciplinary collaboration—involving oncologic surgery, plastic surgery, medical oncology, psychology, and specialized nursing—in

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decision-making and comprehensive follow-up. It also highlights the importance of offering breast reconstruction as part of the standard package of care for breast cancer, rather than as an optional or secondary cosmetic procedure. When properly indicated, delayed reconstruction is not only safe but can optimize both aesthetic and emotional outcomes in patients previously treated with radiotherapy.

Ultimately, this case demonstrates that time elapsed since oncologic treatment is not a barrier to successful reconstruction, provided there is oncologic stability, patient motivation, and appropriate clinical conditions. On the contrary, it can offer a window of opportunity for safer and more emotionally meaningful surgical results.

CONCLUSION

Delayed breast reconstruction with implant, performed two years after breast cancer treatment, is a safe, effective, and emotionally significant option for women who have overcome the disease. In the presented case, a staged approach using a prior graft improved the quality of irradiated tissue, optimizing implant integration and reducing the risk of complications.^{12,13}

Beyond aesthetic and functional benefits, the intervention had a positive impact on the patient's quality of life, reaffirming the importance of viewing breast reconstruction as an integral part of cancer care. Psychological support, multidisciplinary follow-up, and appropriate surgical timing were key elements in achieving a successful outcome from both medical and emotional perspectives.^{14,15}

This case reinforces the need for individualized reconstructive decisions that respect each patient's biological and emotional timelines and underscores the value of a person-centered approach that addresses both physical recovery and psychosocial well-being.^{14,15}

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