

Case Report

Latissimus Dorsi Myocutaneous Flap Approach for Treatment of Radiation-Induced Ulcer in Breast Cancer

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Case Report

In this paper we describe our clinical approach to the treatment of a radiation-induced ulcer resistant to conservative management, which represents an uncommon complication secondary to adjuvant radiation therapy for breast cancer.

The patient is a 64 year-old woman with a history of infiltrating ductal carcinoma G3 pT2N1M0 of the right breast, treated with conservative surgery followed by adjuvant chemoradiation therapy. After 5 years of disease-free interval, the tumor recurred to the ipsilateral rib cage and axillar lymph nodes, for which the patient underwent a completion right radical mastectomy followed by further chemoradiotherapy.

The patient was subsequently lost to follow-up. Two years after the last treatment she presented with a large, indurated, erythematous lesion with superficial ulceration on the right anterolateral chest wall. Several fine needle and incisional biopsies ruled out a recurrence of breast cancer, and a diagnosis of radiation-induced ulcer of the thoracic wall was made.

Conservative management was attempted with progressive worsening of symptoms, characterized by skin breakdowns, episodes of superficial bleeding and recurrent infections, with significant impairment in the patient's quality life (Fig. 1).



Figure 1: Preoperative picture showing the large right thoracic wall ulcer.

Given the failure of a nonoperative strategy, the patient underwent surgical excision of the affected area to healthy tissues and immediate reconstruction with an ipsilateral latissimus dorsi myocutaneous flap, with sparing of the thoracic neurovascular bundle (Fig. 2).



Figure 2: Preoperative planning of right latissimus dorsi myocutaneous flap reconstruction.

The operative time was 240 minutes, with no intraoperative complications and minimal blood loss. On postoperative day 10 a small area of necrosis became evident at the medial aspect of the flap with partial dehiscence, successfully managed with local wound care (Fig. 3).

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Figure 3: Picture on postoperative day 10 showing a small area of skin necrosis with dehiscence at the medial aspect of the flap.

The patient was discharged on postoperative day 19 after complete healing of the dehiscence and she reported a significant improvement in her quality of life with excellent functional and esthetic outcomes at her most recent 12 months follow-up visit (Fig. 4).



Figure 4: Picture at 12 months follow up, showing complete healing with excellent esthetic results.

Surgical excision and immediate reconstruction with a latissimus dorsi myocutaneous flap is a safe and effective approach for the treatment of radiation-induced ulcers in breast cancer refractory to conservative management. An operative management is often needed in order to improve quality life, avoid local complications such as bleeding and recurrent infections, and prevent the development of secondary neoplasms in the setting of radiated, chronic inflamed tissues.

Conflict of Interest: All authors have no conflicts of interest.