



# Use of Lumbar Perforator Recipient Vessels for Salvage Chest Wall Reconstruction: A Case Report

Nyama M. Sillah, MD  
 Jinesh Shah, BS  
 Eugene Fukudome, MD  
 Samuel J. Lin, MD

**Summary:** Abdominal-based free flaps are commonly used for breast reconstruction, and the internal mammary or thoracodorsal vessels are typically used as recipient sites. Conversely, free tissue transfer is less commonly used for chest wall reconstruction in the setting of chest wall recurrence, in part, because of a paucity of recipient vessels. Here, we describe a case of a 68-year-old female smoker with metastatic breast cancer, who presented with a chest wall recurrence. There was a large area of chronic ulceration with foul smelling drainage, in addition to radiation-induced tissue injury, and palliative resection was performed. The area was reconstructed with a free transverse rectus abdominis myocutaneous flap using lumbar perforators as recipient vessels, because conventional recipient sites were unavailable because of scarring from radiation and residual tumor. This case demonstrates that uncommon recipient vessels such as lumbar perforators may allow for successful palliative chest wall reconstruction. We hypothesize that the tumor burden, previous surgeries, and radiation may have rendered the recipient field relatively ischemic, thereby inducing hypertrophy of the lumbar perforators, similar to a delay phenomenon. (*Plast Reconstr Surg Glob Open* 2016;4:e642; doi: 10.1097/GOX.0000000000000540; Published online 17 March 2016.)

**A** 68-year-old woman with recurrent, metastatic breast cancer to the right chest wall presented for extirpation and reconstruction in July, 2014. On presentation, she had a large area of ulceration with foul smelling drainage over a previous drain site overlying a large mass, which had been present for 3 to 4 years (Fig. 1). She previously had been diagnosed with breast cancer in 2005 and underwent mastectomy. She developed a right axillary recurrence in 2010. She underwent radiotherapy to the right axilla and chest wall, which was completed

in April, 2014. She also received multiple rounds of chemotherapy. Over the past few months, she had an approximate 70-pound weight loss and was a current smoker who smoked 2 packs per day.

The patient was brought to the operating room on July 31, 2014, and the mass was resected by thoracic surgery. There was extension of the mass into the axilla, and it was indeterminate whether this represented radiation or postsurgical changes or tumor after resection by the ablative surgical team. The decision was made to leave this area undissected as to not cause additional morbidity (Fig. 2). Although the resection was taking place, a contralateral left free transverse rectus abdominis myocutaneous (TRAM) flap was raised concurrently. After the completion of the extirpation, the defect was explored for recipient vessels. There were vessels visualized on the subscapular pedicle that appeared heavily radiated, scarred, and adjacent to the tissue potentially repre-

*From the Division of Plastic Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Mass.*

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*Drs. Sillah and Shah contributed equally to this article.*

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