CASE REPORT

Anomalous vascular perforator of the internal thoracic artery supplying a pedicled transverse rectus abdominis myocutaneous flap—a case report

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Abstract

The pedicled transverse rectus abdominis myocutaneous (TRAM) flap is an infrequently performed procedure relative to the more current microsurgical free tissue transfers in most centres around the world. However, in resource-limited centres where procedures requiring microsurgical intervention are rarely employed, the pedicled TRAM whose vascular axis is that of the superior epigastric artery, is an invaluable tool in the plastic surgeon’s armamentarium both for breast reconstruction and chest wall soft tissue resurfacing. This a report of a case of variable anatomical vascular perforating branch of the internal thoracic artery, which was encountered while using a TRAM to resurface a chest wall defect after mastectomy was performed for locally advanced breast cancer.

INTRODUCTION

Breast cancer is the most prevalent cancer in women with a lifetime incidence of one in eight-nine [1]. Surgical treatment for breast cancer is usually in the form of mastectomies as they account for about 45% of these procedures [2]. Surgical extirpation employed for locally advanced breast cancer typically culminate with large chest wall defects requiring appropriate and adequate coverage using either soft tissue flaps or skin grafts. Local fasciocutaneous and regional myocutaneous flaps (latissimus dorsi, rectus abdominis) are performed due to their aesthetically pleasing durability, and if adjuvant radiation therapy is needed [3]. The authors present a case of locally advanced breast cancer post-preoperative chemoradiation therapy managed with a pedicled transverse rectus abdominis myocutaneous flap, which was found to have an anomalous perforating branch from the internal thoracic artery, which arose deep to the posterior rectus sheath. We are unaware of this anatomical variation being documented to the best of our knowledge.

CASE REPORT

A 45-year-old afro-Caribbean woman presented with a two-year history of an initially slow growing left breast lump, which then rapidly increase 6 months prior to presentation with associated nipple and skin changes. No constitutional symptoms were reported and her medical history was remarkable for an exploratory laparotomy via a Pfannensteil incision.

Clinical examination revealed a woman with a body mass index of 25.9 kg/m² and 8.0 × 8.0 cm fungating mass in the upper outer quadrant with peau d’orange and nipple areolar retraction along with clinically palpa-

ble ipsilateral axillary lymphadenopathy.

A core needle biopsy was performed and the histopathology confirmed invasive ductal carcinoma with the immunohistochemistry revealing oestrogen, progesterone, human epidermal growth factor receptors (triple) negative disease. Staging computed tomographic scans of the chest, abdomen and pelvis showed no evidence of metastatic disease. The diagnosis according to the American Joint Committee on Cancer 8th Edition was Stage IIIB Invasive Ductal Adenocarcinoma.

Preoperative chemotherapy was commenced using adriamycin, cyclophosphamide and taxol with complete clinical response of the breast and axillary disease and the patient defaulted from surgical outpatient department follow-up.

She represented seven months later with a recurrent left breast mass but no axillary masses. Repeat biopsy confirmed the previous histological findings with staging scans showing no evidence of distant spread. Chemoradiation therapy was initially administered with no clinical response. A multidisciplinary team meeting consens-

sus was for total mastectomy with level II ipsilateral
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CONFLICT OF INTEREST STATEMENT
None declared.

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