Pedicled latissimus dorsi myocutaneous flap for large neck defect reconstruction

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Abstract
Introduction
In the last decade, pectoralis major myocutaneous flap has become the most frequently used flap to reconstruct the large complex defects in head and neck. Recently, a new method called pedicled latissimus dorsi myocutaneous flap has become a new option. In this study, the advantage of pedicled latissimus dorsi myocutaneous flap is summarised.

Case report
In this study, we report a case of a 23-year-old woman with a recurrence of malignant schwannoma in her right neck. After wide resection of the tumour and partial resection of trapezius muscle (Figure 1), a flap was designed according to the size and shape of the defect (Figure 2). Harvesting of the flap was performed by making an incision along the length of the latissimus dorsi muscle. After dissection down to muscle, the flaps were elevated anteriorly and posteriorly, exposing the entire muscle. The muscle was then divided from its attachments and elevated to the level of its thoracodorsal pedicle. The subcutaneous tunnel was made from the insertion of the muscle to the neck defect anterior to the axilla and the muscle passed through (Figure 3). The donor-site defect is closed primarily. Closed suction drains are employed at the donor and recipient sites, but not within the tunnel created to pass the flap pedicle (Figure 4). After surgery, the arm is kept flexed across the chest for seven days.

Discussion
Pedicled flaps, compared with the free flaps, are superior in the head and neck region for the tissue consistency they offer. It had proved to be safe and reliable for those patients who underwent radiotherapy. The bulky nature of the pedicled flaps can fulfil the volume requirement of

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Figure 1: Large defect of the right neck.

Figure 2: Design of the pedicled latissimus dorsi myocutaneous flap.

Figure 3: The subcutaneous tunnel.

Introduction
Defects following ablative surgery in the head and neck region require sophisticated reconstruction using a variety of local, regional or distant flaps, depending on the specific needs of the patient. For large complex defects, the latissimus dorsi myocutaneous flap and pectoralis major myocutaneous flap are commonly used for reconstruction. We describe a pedicled latissimus dorsi myocutaneous flap for large neck defect reconstruction.

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large defects after radical resection and can cover major vascular structures such as carotid artery. The most used pedicled flap is pectoralis major myocutaneous flap. Compared with pectoralis major myocutaneous flap, pedicled latissimus dorsi myocutaneous flap has some advantages including a wider arc of rotation with a larger flap dimension, a more acceptable donor site contour for females, a skin island with less hair follicles in males, and a protected localisation in patients treated with radiotherapy.

**Conclusion**
We have found that this pedicled flap is safe and reliable for large neck defect reconstruction with good contour both in donor and recipient sites.

**Consent**
Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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**References**

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**Figure 4:** The postoperative donor and recipient sites have the closed suction drains.