Reminder of important clinical lesson

Full thickness burn to a latissimus dorsi flap donor site due to a heat pad – there is still a need to improve patient information

Rhiannon Foulkes, Louise Davidson, Christopher Gateley

Royal Gwent Hospital, Newport, UK

Correspondence to Miss Rhiannon Foulkes, FoulkesRE@doctors.org.uk

Summary

The goal of breast reconstruction is an excellent cosmetic outcome, while minimising the risk of complications and donor site morbidity. The authors report a patient who sustained a thermal injury from a heat pad to the donor site of a latissimus dorsi reconstruction. The insensate nature of the donor site secondary to harvesting the flap, had failed to alert her to the tissue damage and this resulted in a third degree burn. Her burn was managed conservatively with dressings and left to heal by secondary intention with associated scarring. Currently patient information leaflets warn against using heat pads, prolonged contact with hot objects and sun exposure to a breast reconstruction. The authors believe this should be extended to include the donor sites, to prevent any more unnecessary thermal injuries in these ladies in the future.

BACKGROUND

This case is important to highlight the risk of thermal injury to the donor sites of breast reconstructions. The majority of patients are aware of risks to their reconstructed breast, as currently patient information leaflets warn against using heat pads, prolonged contact with hot objects and sun exposure to a breast reconstruction. However, very little information is given to them with regard to avoiding these risks to their donor site. It is for this reason we have written this case so that patient information may be improved to prevent unnecessary morbidity and psychological distress in these ladies undergoing breast reconstruction.

CASE PRESENTATION

A 33-year-old lady underwent a right mastectomy and immediate latissimus dorsi breast reconstruction with a silicone implant. Six weeks following surgery, to help with discomfort, she used a microwavable heat pad on her back. This was left in position for approximately 3 h. An inflamed area was noted immediately, which progressed to a third degree burn (figure 1). The insensate nature of the donor site secondary to harvest the flap, had failed to alert her to the tissue damage.

Figure 1 Third degree burn sustained following heat pad injury to the LD donor site.

TREATMENT

The burn was managed conservatively with dressings and left to heal by secondary intention with associated scarring.

DISCUSSION

Following myocutaneous flap breast reconstruction both the flap and its donor site are rendered susceptible to thermal injury as a result of the sensory and autonomic thermoregulatory changes that occur.¹⁻³ Disruption of the autonomic pathways renders the skin incapable of effectively dissipating a heat load and loss of pain fibres prevents the patient from mounting a protective behavioural response by withdrawing from the painful stimulus.¹⁻⁴

Although thermal injury to the myocutaneous flap or its donor site is not life-threatening; it will result in significant inconvenience, multiple hospital attendances, prolonged dressings, possible loss of an implant and the risk of a poor cosmetic result of the reconstruction or donor site. This can be devastating for the patient and these complications can be easily avoided.

The cornerstone of prevention is education and therefore all patients undergoing myocutaneous flap reconstruction should be informed of the vulnerability of both the recipient and donor site. While the vulnerability of the reconstructed breast has been highlighted by case reports,¹⁻³ only burns to the abdominal donor site have been described, and none to the latissimus dorsi donor site.

Currently patient information leaflets warn against using heat pads, prolonged contact with hot objects and sun exposure to a breast reconstruction.⁵ This should be extended to include the donor sites.

Learning points

- Thermal injuries to myocutaneous flaps while not life-threatening can cause significant morbidity and result in multiple hospital attendances, prolonged dressings, possible loss of an implant and the risk of a poor cosmetic result of the reconstruction or donor site.
- In breast reconstruction, the insensate nature of the latissimus dorsi donor site secondary to harvesting of the flap, fails to alert patients to thermal tissue damage.
- Patients must be warned against the use of prolonged contact with hot objects and sun exposure to a breast reconstruction itself and its donor site, which is often neglected, to avoid causing unnecessary morbidity and misery to these patients.

Competing interests None.

Patient consent Obtained.

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Foulkes R, Davidson L, Gateley C. Full thickness burn to a latissimus dorsi flap donor site due to a heat pad – there is still a need to improve patient information. *BMJ Case Reports* 2011;10.1136/bcr.05.2011.4224, date of publication

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