

A Simple Approach to Intraoperative Handling of Split Thickness Skin Grafts in the Oral Cavity

Mervyn Huston¹ · James Ingham² · Leo Stassen³

Received: 13 May 2017 / Accepted: 15 February 2018 / Published online: 20 February 2018
© The Association of Oral and Maxillofacial Surgeons of India 2018

The procedure of placing a successful split thickness skin graft (STSG) in the oral cavity is inherently fraught with challenge. The delicate nature of the graft and the interplay of adjacent oral soft tissues provide a test of skill for any surgeon. The need to lay the graft correctly is well documented and subsequently influences revascularization of the tissue [1]. We describe a simple method for aiding the intraoperative positioning and handling of a STSG in the oral cavity.

A layer of impregnated petroleum jelly gauze is applied to the epidermis of the graft tissue and the edges unrolled with tissue forceps to fully expose the under surface (Fig. 1). This graft–gauze complex now has sufficient rigidity so it can be matched with the recipient bed and used to accurately determine its outline.

The excess graft tissue and petroleum jelly gauze is trimmed, and this now, index template is manipulated to the desired functional shape of the recipient bed and further precisely contoured if necessary (Fig. 2). In addition, this method will prevent elastic recoil of the skin by contractile forces and assist in achieving circumferential contact between the graft and host bed—an important factor in graft success [2].

Tacking sutures are used to secure the grafts position after placement in situ. The impregnated gauze is then easily removed, having completed its task, and the remaining securing sutures placed (Fig. 3).

This simple technique offers temporary and effective shape resistance to the friable graft during placement. The

✉ Mervyn Huston
mervynhuston@gmail.com

James Ingham
j.ingham212@gmail.com

Leo Stassen
stassensec@stjames.ie

¹ School of Medicine, Trinity College Biomedical Science Institute, Trinity College Dublin, 152 – 160 Pearse St, Dublin 2, Ireland

² Musgrove Park Hospital, Parkfield Dr, Taunton, Somerset TA1 5DA, UK

³ St James's Hospital, James's St, Ushers, Dublin 8, Ireland



Fig. 1 STSG applied to petroleum jelly gauze



Fig. 2 Graft–gauze complex contoured to size of recipient bed

authors regard this method as particularly advantageous when reconstructing the unsupported tongue tissue. It provides the advantage of easy positioning, accurate contouring, edge to edge graft-recipient contact, and



Fig. 3 Petroleum jelly gauze removed from fixed graft

prevention of inadvertent instrument trauma to the graft tissue during the procedure.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

References

1. Simman R, Phavixay L (2011) Split-thickness skin grafts remain the gold standard for the closure of large acute and chronic wounds. *J Am Coll Certif Wound Spec* 3(3):55–59
2. Seyhan T (2011) Split-thickness skin grafts, skin grafts—indications, applications and current research. In *Tech*, p 1–15. <http://www.intechopen.com/books/skin-grafts-indications-applications-and-current-research/split-thicknessskin-grafts>