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POINT OF TECHNIQUE

A Simple Dressing Technique Following Dermofasciectomy and Full Thickness Skin Grafting of the Fingers in the Treatment of Severe Dupuytren's Contracture

Andy Tanagho[1] · **Jan Beaumont**[1] · **Roshin Thomas**[1]

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Abstract Dupuytren's disease with severe finger contractures and recurrent contractures following previous surgery often have extensive skin involvement. In these severe cases, excision of the diseased chord along with the involved skin is a good option to reduce the risk of recurrance. The resulting skin defect can be covered with a full thickness skin graft (FTSG) or a cross finger flap. Cross finger flaps have donor finger morbidity and hence a full thickness graft is usually preferred. The FTSG extending to the midlateral margins on both sides of the finger reduces the risk of joint contracture due to graft shrinkage. Once the FTSG is sutured in place, the standard practice is to compress and secure the graft to its recipient bed with a tie-over dressing and this can be time consuming. We present a simple dressing technique to secure the FTSG without the need for a tie-over dressing.

Keywords Dermofasciectomy · Skin graft · Tie-over · Simple dressing

Technical Note:
Following dermofasciectomy of the affected finger, a size matched full thickness skin graft is harvested from the forearm. The graft is defatted and fenestrated. The edges of the graft are sutured to the skin margins of the defect with interrupted 5–0 Vicryl Rapide absorbable sutures. The graft is anchored with adequate tension to provide compression and avoid dead space between the graft and its recipient bed. This, along with the fenestrations in the FTSG, helps minimise haematoma formation and enhances graft uptake. Non-adherent Mepitel® dressing (by Mölnlycke Health Care) is cut to size to cover the graft and 5 mm of surrounding skin. It is placed over the graft and then small gauze pieces, cut to size, are placed over it. Mepitel® can be sticky to surgical gloves and it helps to wet your gloves in saline and also soak the Mepitel® in saline before cutting it. Small size (50 mm) sterile cotton wool roll is wrapped around the finger to secure the dressings in place. The adjacent finger is then incorporated with the wool roll to buddy the fingers together as this provides adequate width to base the subsequent Plaster of Paris (POP) volar slab. A Plaster Of Paris (POP) volar slab is cut to the width of the two fingers and secured with a small (50 mm) crepe bandage over it. Fingers are held in full extension for a week and high elevation is advised. Following the correction of severely contracted fingers, full extension can result in a vascular compromise

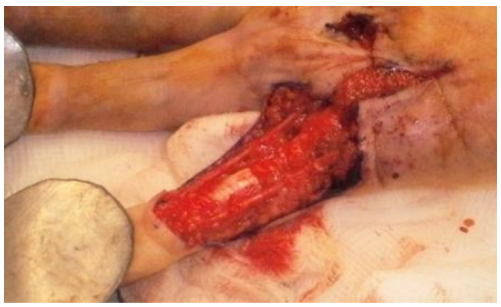

Fig. 1 Dermofasciectomy with full finger correction

✉ Andy Tanagho
atanagho@nhs.net

Jan Beaumont
jan.beaumont@nhs.net

Roshin Thomas
roshinthomas@nhs.net

[1] Dumfries and Galloway Royal Infirmary, Dumfries, UK

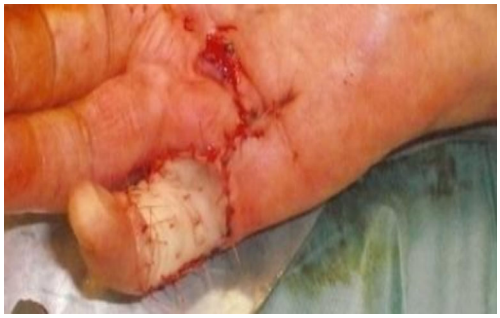

Fig. 2 Full thickness skin graft to cover the raw area

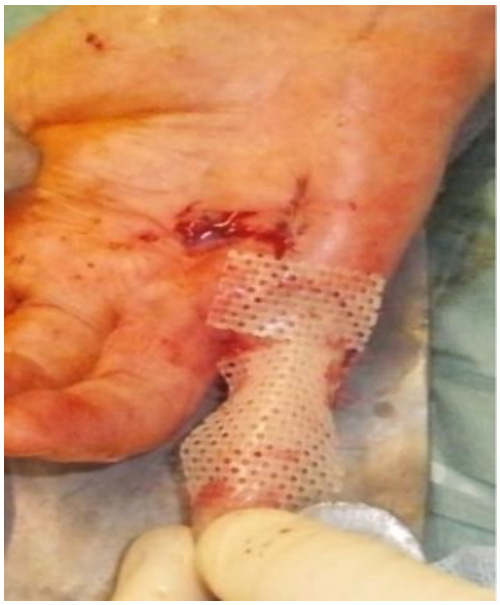

Fig. 3 Mepitel® cut to size to cover the graft

due to vasospasm and stretching of the vessels, and hence some degree of flexion of the fingers can be initially accepted. This can be subsequently improved with therapy and splintage. On the seventh postoperative day, the FTSG is inspected and a new Mepitel® dressing is applied and secured in place with a Mepore® dressing (by Mölnlycke Health Care). The finger is mobilised between postoperative day-7 and day-10 depending on the quality of graft

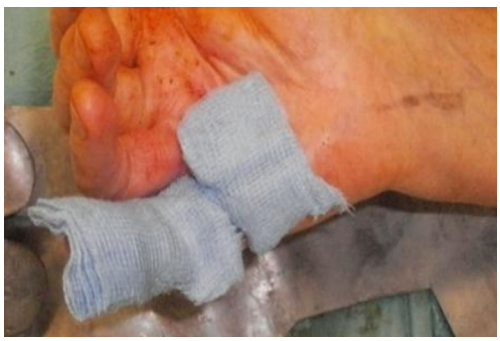

Fig. 4 Blue gauze cut to size to cover Mepitel®

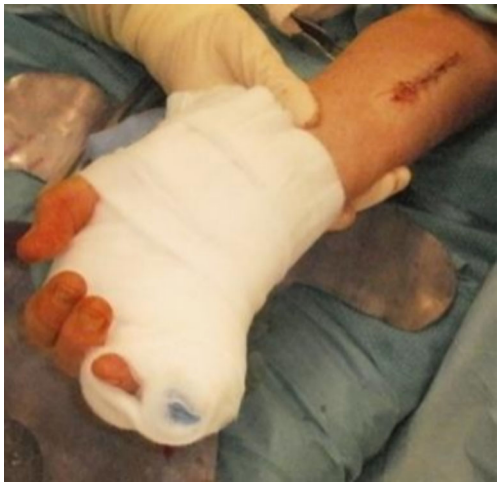

Fig. 5 Wool roll to hold dressing

uptake. A thermoplastic hand based finger splint is provided at the first FTSG inspection and used in between therapy sessions and at night time for 6 weeks.

This simple dressing technique is easily reproducible and effective. Other advantages of this technique over tie-over dressings include it being a quicker procedure (makes life easier for the surgeon), avoids the use of non-absorbable sutures which need removal later (makes life easier for the nurses) and saves time at follow up appointment as there are no tie-over dressings to remove (makes life easier for the hand therapist). This technique also avoids having to remove sutures from sensitive areas of the finger, which can be uncomfortable for the patient (leaves a happy patient) (Figs. 1, 2, 3, 4, 5 and 6).

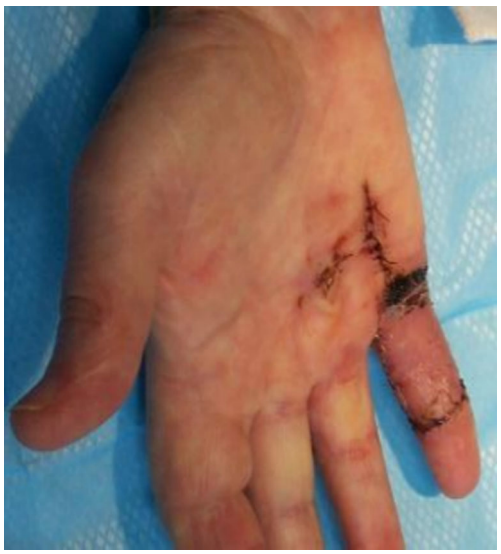

Fig. 6 Graft taken at 10 days postoperatively

Compliance with Ethical Standards

Conflict of Interest We have no relevant financial relationships to disclose and no conflicts of interest. We have not received any funding.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.