The effectiveness of the celluTome™ epidermal harvesting system – should we change our clinical practice?

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INTRODUCTION

The celluTome system is a novel idea intended to reproducibly harvest a thin skin graft for autologous skin grafting. It claims to:
• Harvest tissue without damaging the donor site.
• Produce less pain when compared to traditional graft harvest negating the need for local anaesthetic.
• Cause less scarring at the harvest site.

RESULTS

• All patients felt pain at the time of harvest.
• Two thirds of patient's grafts had 0% take and the remaining patient had 50% graft take.
• The donor sites healed within 1-2 weeks.
• All patient healed without scarring.

Nursing staff experienced difficulty in generating a sufficient vacuum on thinner patients.

DISCUSSION

Although these grafts can be taken in an outpatient setting, we felt that they were unsuccessful and have discontinued their use and reverted back to tradition techniques.

METHOD

Worcestershire Royal Hospital was one of the first Maxillofacial surgery units to trial this technique. We harvested 3 grafts using the celluTome system. All grafts were harvested from the thigh area. The scalp was the recipient site for each patient. We assessed:
• whether patients felt pain during the procedure,
• the percentage graft take,
• the donor site healing time
• cosmesis.

A strap and vacuum connector are placed on the skin, and the CelluTome is set for 30 - 45 minutes. The heat & suction raises epidermal microdomes which are removed with a cutting blade. After the tissue is collected, an adhesive dressing is placed on top of the collection site, and the harvested skin is then removed via the dressing. The dressing is then placed on the recipient site and the tissue is transferred.

REFERENCES
