

The Use of Fenestrated Dehydrated Complete Human Placental Membrane (dCHPM) Allografts in a Necrotic Flap Surgical Wound

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Initial Wound



Five Applications

PATIENT BACKGROUND

An 80 year-old male with end stage renal disease on hemodialysis underwent scalp reconstruction with rhomboid rotational flaps following Mohs resection of a central scalp basal cell carcinoma. His post-operative course was complicated by bleeding at the surgical site and subsequent development of an infection. He presented to clinic 12 days post-reconstruction with necrosis of a portion of one of his rotational flaps, wound erythema, and purulence. The purulent material was drained and the majority of his staples were removed. He was prescribed doxycycline and scheduled to return in one week.

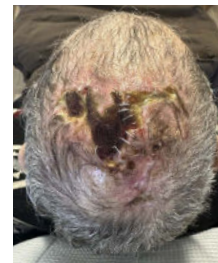


Figure 1. Necrotic flap.

FIRST APPLICATION - DAY 0

The patient returned for debridement of the necrotic flap and application of fenestrated dCHPM allografts (Figure 1). The wound was debrided down to the level of the periosteum, which remained intact except for a very small area of exposed bone in the left lateral wound. Post-debridement, the left wound area measured 2cm x 3cm and the central wound area measured 3cm x 5cm. Fenestrated dCHPM allografts were applied (Figure 2), followed by Xeroform™, gauze, and Kerlix™ dressing.

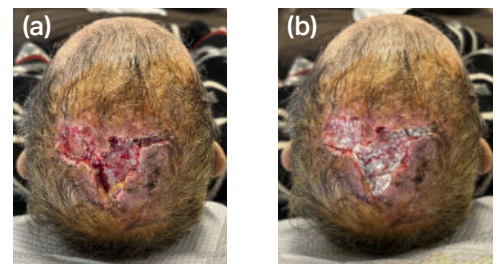


Figure 2. Day 0. (a) Post-debridement. (b) Fenestrated dCHPM applied.

SECOND APPLICATION - DAY 7

The patient returned for follow up 7 days later. The wound was debrided until all fibrinous and necrotic tissue was removed. The left wound area measured 1.5cm x 2.5cm, and the central wound area measured 3cm x 4cm. While significant granulation tissue was present, bone exposure was noted in the left lateral aspect of the wound. Fenestrated dCHPM allografts were applied (Figure 3) and covered with Xeroform, gauze, and Kerlix dressing.

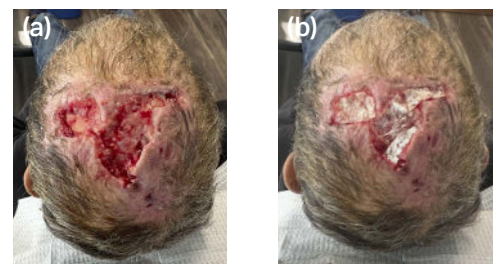


Figure 3. Day 7. (a) Post-debridement. (b) Fenestrated dCHPM applied.

THIRD APPLICATION - DAY 14

One week later, the patient returned for debridement and graft application. The left lateral aspect of the wound still showed a persistent, small amount of exposed bone. The left wound area now measured 1cm x 2cm, and the central wound area measured 2.5cm x 3cm. A fenestrated dCHPM allograft was applied (Figure 4) followed by Xeroform, gauze, and a beanie hat instead of Kerlix wrap.

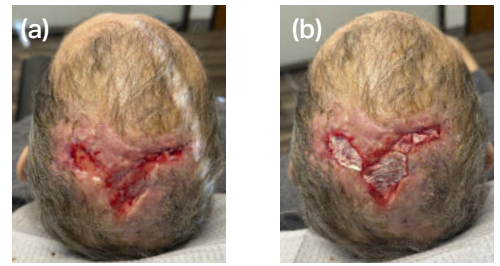


Figure 4. Day 14. (a) Post-debridement. (b) Fenestrated dCHPM applied.

FOURTH APPLICATION - DAY 27

The patient returned 13 days later for debridement and graft application. The previously exposed bone was completely granulated. The left wound area measured 1.25cm x 2cm, and the central wound area measured 1.75cm x 3cm. A fenestrated dCHPM allograft was applied (Figure 5), followed by Xeroform, gauze, and a beanie hat.

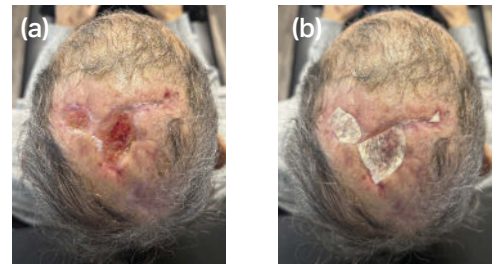


Figure 5. Day 27. (a) Post-debridement. (b) Fenestrated dCHPM applied.

FINAL APPLICATION - DAY 43

Due to extreme weather, the patient was unable to return for follow up until 16 days later. Within 4 applications, the wound had reduced by 96%. The left wound area measured 0.5cm x 0.5cm, and the central wound area measured 0.75cm x 0.75cm (Figure 6). A final fenestrated dCHPM allograft was applied, followed by Xeroform, gauze, and a beanie hat. Follow up was scheduled in one month.



Figure 6. Day 43.

WOUND RESOLVED

The patient returned in one month for a wound check to ensure complete resolution. The wound was completely re-epithelialized, and the physician and patient were pleased with the outcome (Figure 7). Overall, the physician noted excellent handling of fenestrated dCHPM allografts throughout patient care.



Figure 7. Day 71. Wound check to ensure complete resolution.



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