

Case report: External tissue expansion for salvage of donor site necrosis after gastrocnemius flap

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Case report #52

Prior to application of DERMACLOSE device: 55-year-old female patient who underwent right knee replacement suffered soft tissue complications involving exposure of the replacement. The patient was initially treated by the orthopedic service which debrided the wound, and the patient was then transferred to the reconstructive surgery service. After debridement, the patient underwent gastrocnemius flap and skin graft. Post operatively, due to poor design of the access incision, the patient suffered soft tissue necrosis of the donor site. After debridement, a large full thickness wound measuring 20 cm x 12 cm was found. The patient was initially treated with VAC therapy, and soft tissue reconstructive options were contemplated. The usage of skin substitutes followed by eventual skin graft was identified as an option, but there remained concern for length of treatment as well as significant deformity. Therefore, decision was made to perform soft tissue expansion followed by primary closure of the expanded wound.

DERMACLOSE device application: The patient was taken to the operating room for final debridement and the remaining wound measured 20 x 12 cm in size. Two DERMACLOSE external tissue expanders were placed for expansion and eventual wound closure. The standard V-M-W technique was used with 3 total barbs on either side of the wound (per expander), each barb 2-3 cm away from each other and 0.5 – 1.0 cm away from the wound edge.

DERMACLOSE device removal: 7 days after the application of the DERMACLOSE expanders, the wound was in close approximation. The patient was returned to the operating room for expander removal and primary closure with multiple layers of sutures.

Follow-up: The patient returned for follow up 2 weeks post operative. Sutures were removed and the wound completely healed.

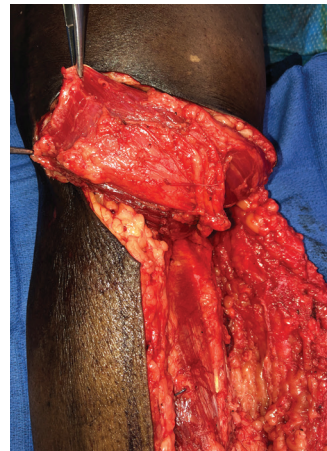
Conclusion: The patient's flap reconstruction of the knee allowed for salvage of the implant, and the expanded and reconstructed donor site allowed for linear closure, preventing a large deformity of the leg.

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INDICATIONS FOR USE: The DERMACLOSE Continuous External Tissue Expander is indicated for use in assisting with the closure of moderate to large surgical or traumatic acute full thickness wounds of the skin by approximating and reducing the size of the wound.

CONTRAINDICATIONS: The DERMACLOSE Continuous External Tissue Expander should not be used on ischemic, infected, or acute burned tissue. It should not be used on fragile tissue at the edges of a wound.

For single patient use only.



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The expanded and reconstructed donor site allowed for linear closure of the donor site, preventing a large deformity of the leg.

Case report courtesy of Ajul Shah MD.