Hypergranular Wounds Secondary to Surgical Dehiscence Treated with Dehydrated Human Amnion/Chorion Membrane (dHACM) Particulate

Hannah K. Park, DPM, Robin Lenz, DPM, Darshan Nagesh, DPM, Matthew Garoufalis, DPM

Jesse Brown VA Medical Center - Chicago, IL

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Background
- Surgical dehiscence can be a result of infection, wound tissue hypoxia due to excessive manipulation, anatomic location, edema, tight sutures, hematoma, excessive pressure from surgical dressings, or early weight bearing in the foot.2
- It is challenging for clinicians to heal surgical dehisced wounds especially with hypergranular tissue.

An old method taught is the application of silver nitrate sticks. However, it has been found that PURION® Processed dehydrated human amnion/chorion membrane (dHACM) tissue has the ability to decrease inflammation, inhibit tissue MMP (matrix metalloproteinase) activity which degrades extracellular matrix components which are the cause of persistent hypergranular tissue and accelerate wound healing.2

Purpose
- Our purpose is to show evidence of hypergranular wound healing with dHACM particulate in surgical wounds.

Methods
- Two patients were treated with dHACM for hypergranular wounds after surgical dehiscence (dorsal 1st MTPJ and dorsal TMA) with cellulitis that was treated with IV and oral antibiotics over the course of nine months.
- Both patients received standard wound care and sharp debridement with the addition of dHACM particulate on a weekly basis.

Conclusions
- Patients with surgical dehisced wounds with hypergranular tissue are at risk for complications including amputations and are a challenge to clinicians to close the wound.
- We believe dHACM, with its ability to reduce cell proliferation, inflammation, and metalloproteinase activity is an effective treatment for these challenging wounds.

Case 1. 70 yo male with PMHx of DM2, ESRD, Afib, HTN, CHF, polyneuropathy, Charcot arthropathy, moderate PVD, s/p TMA for his left foot secondary to osteomyelitis of the 2nd metatarsal and 3rd digit with surgical dehisced wound after 12 days post op. Pt was given PO Clinda and Cipro after TMA and was admitted once for cellulitis in which he was treated with IV antibiotics.
  • Over the 6+ month treatment period the patient received 31 dHACM applications (14 injections of particulate in suspension and 17 allograft sheets). Healed at day 185.

Case 2. 66 yo male, non-diabetic with iatrogenic neuropathy R 1st MTPJ resection which dehisced and became infected with cellulitis. Pt was admitted for IV antibiotics and then was given Bactrim after the PICC was discontinued. Pt has normal blood flow with ABIs.
  • Treated with SNAP wound vac and antibiotics from day 0 to day 47, wound became hypergranular and was treated with 1 injection of dHACM particulate in suspension on day 47.
  • Healed at day 57.