

# Dehydrated Human Amnion Chorion Membrane Allograft for the Management of Hard to Heal Complex Wounds

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## OBJECTIVE

The goal of this case series is to highlight the use of Dehydrated Human Amnion Chorion Membrane (\*DHACM) allografts in the treatment of three patients located in Saudi Arabia with various head-to-toe hard-to-heal ulcers that had previously failed a standard of care treatment approach.

## METHODS

### Case One:

46-year-old male involved in a motor vehicle related accident that resulted in a spinal cord injury. He was admitted to the intensive care unit for 16 days. His hospital course was complicated with the development of a stage 4 occipital pressure injury ulcer (Figure 1).

### Case Two:

63-year-old wheelchair bound male with the following comorbidities: diabetes mellitus, hypertension, ischemic stroke and incomplete paraplegia. During his medical course he unfortunately developed a stage 3 sacral pressure injury ulcer (Figure 2).

### Case Three:

43-year-old diabetic male with a diabetic foot ulcer (DFU) complicated with osteomyelitis (figure 3). A below knee amputation was initially recommended by another provider. Fortunately, the patient sought out a second opinion and was referred to a wound care specialist who appropriately proceeded with a 5th ray amputation and continued antibiotics (Figure 4).

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Figure 1. Hospital-acquired stage 4 occipital pressure injury ulcer.

Figure 2. Wheelchair bound patient with a stage 3 sacral pressure injury ulcer.



Figure 3. Infected (osteomyelitis) right 5<sup>th</sup> toe DFU.

Figure 4. Status post 5<sup>th</sup> ray amputation.

## RESULTS

### Case One:

The stage 4 occipital pressure injury ulcer stalled with standard of care (SOC). After treating a mild peri-wound wound infection (cellulitis), DHACM was applied only once and kept in place for at least 7 days. Afterwards, SOC was resumed. Closure was achieved 25 days after applying DHACM (Figure 5).

### Case Two:

The stage 3 sacral pressure injury ulcer had devitalized tissue that required surgical debridement over a 10-day period. Due to delayed closure the treating provider decided to apply a DHACM allograft. Complete epithelialization of the ulcer was eventually reached after the trajectory towards closure (Figure 6) was re-established with DHACM.

## RESULTS

### Case Three:

During the post surgical course, the DFU failed SOC prompting the application of a DHACM allograft with a second application 15 days later (Figure 7). Again, ulcer resolution was obtained after the trajectory towards closure was re-established with DHACM.



Figure 5. Closure of a stalled stage 4 occipital pressure injury ulcer after a single application of DHACM.

Figure 6. Sacral pressure injury ulcer on trajectory to closure 25 days after DHACM applied.



Figure 7. Resolution of stalled DFU after two separate applications of DHACM allografts placed 7 to 14 days apart.

## CONCLUSION

The Application of a Dehydrated Human Amnion Chorion Membrane (\*DHACM) allograft barrier was effective in promoting wound closure in the treatment of two patients with hard-to-heal pressure injury ulcers and a third DFU patient initially complicated with underlying osteomyelitis.

\*DHACM = EPIFIX (MiMedx Group, Inc., Marietta, GA, USA.)

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