

WoundPro® Negative Pressure Wound Therapy **CASE STUDY**

Traumatic Foot Wound



About the Patient

36 year old male who was struck in the foot by a piece of metal equipment at work. He developed a large hematoma with necrosis of the top of his foot.



Treatment

The patient initially underwent debridement and primary closure; however, he had incisional dehiscence and was referred to the Wound Healing Center of Indiana at Bedford.

It was decided that Negative Pressure Wound Therapy was the best course of action and was applied using the Pensar Medical WoundPro and the Chariker-Jeter technique. Continuous pressure was applied at 100mmHg to the wound with dressing changes every three days.



Results

Rapid healing was noted over the next two months, and Negative Pressure Wound Therapy was discontinued. The patient was then started on a collagen based dressing with a composite topper that was changed every third day. Final healing occurred rapidly with no loss of function noted after healing.

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Diabetic Foot Abscess



About the Patient

57 year old Insulin dependent diabetic, presented with cellulitis of the lateral right foot. He was taken to surgery where an abscess was identified with osteomyelitis of the 5th Metatarsal. He underwent decompression of the abscess and removal of the 5th metatarsal head.

The wound was packed with collagen which combined with the blood in the wound. After 1 week of hydrogel gel dressings, the old dressings had loosened and were removed exposing healthy tissue.

Treatment

Multiple treatment options were discussed and Negative Pressure Wound Therapy was decided upon. The Pensar Medical WoundPro and the Chariker-Jeter technique were implemented at 100mmHg continuous pressure with dressing changes every third day.

Results

After 2 weeks of Negative Pressure Wound Therapy, the granulation tissue had increased and the dimensions of the wound had greatly reduced.

After 6 weeks of Negative Pressure therapy, the wound had markedly improved and negative pressure was discontinued.



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CASE STUDY

Pressure Ulcer - Quadriplegic



About the Patient

47 year old quadriplegic male who was initially seen as a house call for progressive worsening of open wounds of the sacrum and bilateral ischii.

Treatment with Hydrogel dressings to prevent autolytic debridement was commenced; however, when he was transferred to a local hospital for urosepsis he also underwent debridement of the sacrum.

Treatment

The patient was then transferred to a local nursing care facility and started on Negative Pressure Wound Therapy using the Pensar Medical WoundPro. The Chariker-Jeter technique was used with continuous negative pressure of 80mmHg. In addition, aggressive nutritional repletion was commenced.

Results

After 5 months of Negative Pressure Wound Therapy, the wound was almost flush with the skin, and had luxuriant granulation tissue. He was started on Calcium Alginate dressings with a composite topper changed every other day.

WoundPro® Negative Pressure Wound Therapy CASE STUDY

Stage IV Decubitus



About the Patient

92 year old male who developed a Stage 4 decubitus of the right heel while hospitalized for dehydration. He was referred to the Wound Healing Center of Indiana at Bedford where aggressive wound care and offloading were instituted.

The patient's Deep Tissue injuries progressed and the calcaneus became exposed. Osteomyelitis was diagnosed and he was taken to surgery for debridement of the wound and affected bone. He was started on intravenous antibiotics based on the bone cultures.

Treatment

Multiple treatment options were discussed; however, based on the copious drainage from the wound Negative Pressure Wound Therapy was decided upon. The Pensar Medical WoundPro and the Miller MEG-Small dressing were used at a pressure of 40mmHg and the dressing was changed every 3rd day. The heal was completely off-loaded.

Results

Excellent healing was noted using this technique with progression of the granulation tissue. As the drainage decreased, the Chariker-Jeter technique at 80mmHg was commenced.

Occasional hypertrophy of the granulation tissue required debridement to assure healing and promotion of epithelialization. No further progress could be noted as two weeks after the final picture was taken, the patient suffered a heart attack and died.



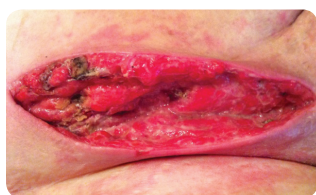
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CASE STUDY

MRSA abscess on Abdomen

About the Patient

54 Year old white female who presented to the Emergency Department on 10/15/11 with a large abscess in the lower right quadrant of abdomen. A culture of the drainage was obtained and she was admitted to the hospital and started on IV antibiotics.



Day One

After further testing identified a definitive deep abscess, she underwent a surgical incision and drainage of the abscess on 10/17/11. Cultures demonstrated Methicillin Resistant Staphylococcus Aureus as the predominant species. The wound was left open. Patient was placed on a KCI V.A.C and culture based antibiotics were continued during the hospital stay. She was discharged to home on 10/21/11 on Zynox and Negative Pressure Wound Therapy was continued using the WoundPro NPWT pump, with the ProFoam dressing, on continuous mode at 125mmHg.

Length: 18.2 cm
Width: 6 cm
Depth: 3.3 cm
Undermining #1: 2.2 cm
Undermining #2: 1.5 cm
Drainage: moderate serous-sang
Odor: minimal



3 Days of treatment

The Patient experienced multiple episodes of severe pain during the removal of the foam dressing due to in-growth as well as discomfort during active therapy. She elected to change dressings based on her desire to continue the Negative Pressure Wound Therapy but in a less painful manner. The therapy was changed to a gauze dressing and variable intermittent therapy at a High pressure of 80 mmHg for 20 minutes and the low pressure at 40 mmHg for 40 minutes.



10 Days of treatment

Length: 14.0 cm
Width: 3.0 cm
Depth: 1.9 cm
Undermining #1: closed
Undermining #2: closed
Drainage: min ser/sang



27 Days of treatment

Length: 8.2 cm
Width: 2.0 cm
Depth: 0.9 cm distal
1/3 is 0.2 cm
Undermining #1: closed
Undermining #2: closed
Drainage: scant ser/sang
Odor....none



40 Days of treatment

Length: 4.0 cm
Width: 0.8 cm
Depth: 0.25 cm
Undermining #1: closed
Undermining #2: closed
Drainage: scant ser/sang
Odor....none.

47 Days of treatment

WoundPro negative pressure wound therapy discontinued. Wound was covered with a large band-aid.



56 Days of treatment

Wound closed.

Results – This case points out several important considerations. Foam dressings, while more generally used have definitive drawbacks (such as pain with removal due to tissue ingrowth) that in this case, mandated a change to gauze as the wound contact medium. The literature has shown that pressures of greater than 100mmhg may themselves affect healing adversely and may also cause discomfort during initiation and active therapy. The use of lower pressures in addition to the change in wound contact media reduced this patient's pain. The use of variable pressures may also have contributed to a reduction in this patients healing time as well as discomfort during therapy.