Case Study

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Cardinal Health™ Negative Pressure Wound Therapy

Use of Cardinal Health™ NPWT PRO to Treat a Tibial Wound with Osteomyelitis

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Patient Description

The patient was an 87 year old woman with a full-thickness postoperative wound caused by wound dehiscence with exposed tendon.

Case History

The patient experienced a ground level fall on 1/16/17 and suffered a comminuted, displaced left tibial plateau fracture. She underwent surgery on 1/18/2017 for an open reduction internal fixation of the Schatzker VI tibial plateau fracture. The surgeon realigned and stabilized the fracture with medial and lateral plates and screws and filled large bone voids with bone graft. The surgeon noted the difficulty of skin closure because of patient's very thin skin.

Patient was discharged on 1/23/17 with multiple open wounds due to skin tears and incision dehiscence.

Wound assessment on 2/8/17 revealed a large amount of slough with exposed tendon over the proximal anterior tibia wound. The wound measured 2.6 x 1.6 cm with exposed tendon 1.7 x 1.4 cm.

Comorbid factors affecting healing included COPD, osteoporosis, history of compression fractures, and seronegative rheumatoid arthritis, malnutrition, and Vitamin D deficiency. The patients appetite was poor. She was given protein drinks to supplement her diet. She was not on immunotherapy or corticosteroids. The patient was also a former smoker.

Treatment

Initial postoperative wound care consisted of covering the wounds with Xeroform™ gauze, then dry 4 x 4 ABDs, and wrapping the leg with roll gauze. The leg was immobilized with a full-leg knee brace. The continuing course of treatment was as follows:

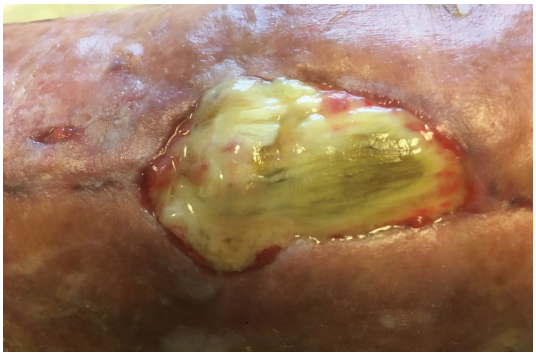
Beginning Point

By 2/15/17, the anterior tibial plateau wound was 4.0 x 3.5 cm with tendon 2.3 x 1.5 cm. The patient was diagnosed with osteomyelitis with exposed bone, hardware and patella tendon. Cultures were positive with Staph Aureus. A vascular workup was performed showing lower extremity arterial disease in contralateral leg. Amputation was recommended. The patient refused. Options were discussed and she agreed to have surgery to remove the infected hardware, use negative pressure wound therapy and remain in the nursing home for negative pressure wound therapy dressing changes and IV antibiotic therapy.



Assessment

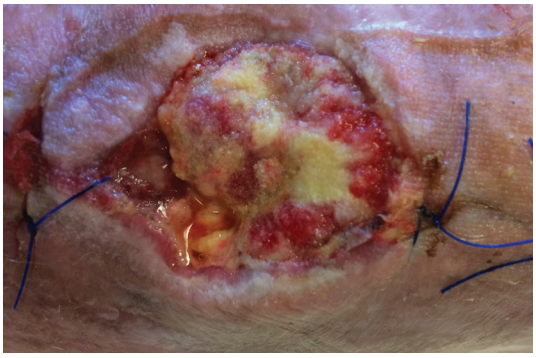
On 3/27/17, the patient underwent surgery to remove the exposed, infected hardware and exposed bone and patella tendon. A Cardinal Health™ NPWT PRO device was placed over the anterior patella tendon wound in surgery (Cardinal Health™ White Foam Dressing covered with Cardinal Health™ Black Foam Dressing, with pieces of Xeroform™ gauze covering skin tears or abrasions under the clear transparent NPWT dressing).



Mid Point

On 3/29/17, the patient was discharged to a skilled nursing facility and given IV antibiotics.

Wound management continued with the Cardinal Health™ NPWT PRO device. Cardinal Health™ White Foam Dressing was used to cover exposed bone and tendon, Cardinal Health™ Black Foam Dressing to fill the rest of the wound. The wound continued to granulate, with progress towards closure.



End Point

Over the next two months, subsequent assessments showed that the wound size and slough percentage were steadily decreasing.

On 6/4/17, the patient returned home with home health services for ongoing wound care.

Wound care continued with the Cardinal Health™ NPWT PRO device, using Cardinal Health™ Black Foam Dressing over the granulating wound base. The wound completely healed, and the patient was ambulatory.



Summary

The Cardinal Health™ NPWT PRO device was used as part of this complex wound treatment regimen. The device was used across multiple care settings, making transitions seamless. Granulation occured over bone and tendon while the Cardinal Health™ White Foam Dressing was used as the primary wound contact under the Cardinal Health™ Black Foam Dressing.

The information presented in this case study is specific to this patient and is not intended to be a substitute for professional medical advice, diagnosis or treatment. Always seek the advice of a licensed physician or other qualified health care professional.

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Please refer to the Cardinal Health™ NPWT PRO User Manual for indications, contraindications, precautions and safety information. Caution: Federal law restricts this device to sale by or on the order of a physician.

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