

Experience with a New Negative Pressure Wound Therapy (NPWT) Portable Alternative in the Outpatient Surgical Setting



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Introduction & Aim

Negative Pressure Wound Therapy (NPWT) in the outpatient surgical setting addresses a growing need to decrease length of stay (LOS) while providing an optimal wound healing environment for post debridement and/or graft procedures. Several outpatient, portable NPWT devices are currently in use, although with limitations. We present a case series of three patients who underwent surgical debridement in combination with a split or full thickness skin graft plus NPWT, and were discharged to home on the same day. The new portable NPWT device was used on the head and neck and two lower extremities. Our aim is to confirm the use of this device as a safe and reliable therapy in the outpatient post surgical environment for home use.

Methods

The portable NPWT device was applied in the operating room immediately post-op on all three patients. Patient #1 underwent a debridement to the scalp and a split thickness skin graft. Patient #2 had a left leg wound debridement and Patient #3 underwent a left foot debridement, adjacent tissue rearrangement, local flap, and a split thickness skin graft. A silver contact layer was applied under the NPWT foam dressing on all three patients. The NPWT dressing stayed in place for 3-10 days. All patients were transferred to the PACU after which discharge teaching was done and were then discharged home with the portable NPWT device. All patients returned to the office for dressing removal.

Patient Outcomes

The portable NPWT device successfully managed the incision for each type of surgical wound. Patient #2 described the portable pump as “easy” to use and to carry. All three patients managed the NPWT device independently at home with no complications. The portable NPWT device was in place until the end of treatment. All dressings were removed in the surgeon’s office and complete closure and healing was achieved.

Conclusion

These three cases presented demonstrate that this portable NPWT device* can be used safely and effectively from the post-operative setting to the home setting. The mobility, reliability and

ease of use of the device facilitated patient compliance. We were able to conclude that this portable NPWT device is clinically acceptable for several wound types in the post-acute setting. The patients and their families were very satisfied with the overall experience from surgery to the discharge to home, successfully avoiding the need for an extended inpatient stay and complete healing was achieved of their surgical sites with no complications. Sending patients home with this portable NPWT device may help ensure: 1. Continuity of therapy whether the patient is discharged during the day, night, and even on weekends. 2. Avoidance of unnecessary days in the hospital due to administrative requirements sometimes associated with patient discharge.



Patient #1: 55yr
Dx- Traumatic Scalp Wound
Surgery: 5/4/2016- Debridement of scalp wound, split thickness skin graft



Patient #2: 79yr
Dx: Left leg tumor (Squamous cell cancer)
Surgery: 5/11/2016- excision of squamous cell cancer, full thickness skin graft (5x8), local fascial flap and placement of NPWT



Patient #3: 52 year old male
Diagnosis: Left foot wound
Surgery: 7/27/2016- Left foot debridement, adjacent tissue rearrangement, local flap