



Usage of Vacuum Assisted Closure® (V.A.C.®) Veraflo™ Therapy with Intermittent Hydrocyn® Instillation in Treatment of Traumatic or Infected Wound: Clinical Experience and Case Series.



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INTRODUCTION

V.A.C.® Veraflo™ therapy consists of negative pressure wound therapy (NPWT) coupled with automated, controlled delivery to and removal of topical wound treatment solutions from the wound bed.

The system is highly flexible with adjustable negative pressure settings and helps disrupt the bioburden cycle through repeated cleansing cycles.

CASE DESCRIPTION

We report a series of two cases who were treated using this system with favourable outcomes.

Patient 1:

A 21-year-old gentleman who sustained high energy trauma resulting in deep laceration wound with complete transmetatarsal joint dislocation and multiple tarsal and metatarsal open fractures at right foot.

He underwent wound debridement, ray amputation of right third toe, with K-wire insertion at right second, fourth and fifth toes (Figure 1).

Patient 2:

A 48-year-old gentleman with diabetes mellitus who required an extensive wound debridement following a limb-threatening necrotizing fasciitis infection at right leg (Figure 2).

Both patients were started on Veraflo™ therapy with the following settings programmed:

- Automated instillation of 50cc of Hydrocyn® solution with soak time of 15 minutes
- Cycle repeated every 8 hours, with 100mmHg of negative pressure.

The wounds showed significant improvement after the therapy which eventually progressed to full wound healing with conventional modern dressings.

DISCUSSION

NPWT is widely adopted by many institutions and has been established as an effective wound care modality for managing complex acute and chronic wounds. However, conventional NPWT only applies localized negative pressure to the wound bed.

REFERENCES

- Kanakaris NK, et al. The efficacy of negative pressure wound therapy in the management of lower extremity trauma: review of clinical evidence. Injury. 2007 Dec;38 Suppl 5:S9-18.
- Diehm YF, et al. Negative pressure wound therapy with instillation and dwell time (NPWTi-d) with V. A. C. VeraFlo in traumatic, surgical, and chronic wounds-A helpful tool for decontamination and to prepare successful reconstruction. Int Wound J. 2020 Dec;17(6):1740-1749.

The V.A.C.® Veraflo™ therapy permits controlled instillation of topical wound solution (e.g. Hydrocyn®) to clean the wound at regular cycles, while reducing the bacterial load through the action of its active substance, hypochlorous acid (HOCl).

The instillation fill volume and soak time can be adjusted during each dressing cycle to provide clinicians with therapeutic options that can be customized for different wound care needs.



Figure 1: Traumatic wound after debridement (left) and post-Veraflo™ therapy with Hydrocyn® instillation (right) for 5 days.



Figure 2: V.A.C.® Veraflo™ therapy system (left). Infected wound after extensive debridement (right upper) and post-Veraflo™ therapy with Hydrocyn® instillation (right lower) for 5 days.

CONCLUSION

Our clinical experience showed favourable outcome with the use of V.A.C.® Veraflo™ therapy with intermittent Hydrocyn® instillation in treatment of traumatic or infected wound.