

A novel approach to wound management and prosthetic use with concurrent vacuum-assisted closure therapy

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Abstract

Background and Aim: Stump healing is critical to post amputation management. When healing is not optimal, immobility is prolonged and patients risk hospital acquired deconditioning. Two clinical cases with unhealed trans-femoral stump wounds are described. Vacuum assisted closure (VAC) dressing with concurrent prosthetic utilisation was undertaken successfully in both cases.

Technique: Fitting of the prosthetic socket included space for VAC dressing with modifications to allow the suction piping to exit the prosthesis. With VAC application, timely rehabilitation and mobility was enabled despite incomplete wound healing.

Discussion: The two clinical cases described made excellent progress. Discharge home was expedited with the provision of portable VAC pumps. Wounds healed fully without infection. Both patients were able to mobilise sooner than if they had to wait for complete wound closure and, importantly, the consequences of prolonged immobility were minimised. No extra costs were incurred using this novel therapy.

Conclusion

It is proposed that early mobilization through prosthesis modification offers a new approach to the management of transfemoral amputation wounds where VAC dressings have been applied. This treatment regime has multifaceted benefits both for patients and for those supplying their care, as it reduces the impact of prolonged immobilization and gives patients both a psychological and physiological boost that leads to improved outcomes.



Figure 3. Patient 1 fitted with his adapted prosthesis showing the hole drilled to accommodate the hose and allow fluid to drain unimpaired through the VAC device whilst walking.