

***Management of diabetic foot ulcer ( Wagner Gr. II to IV) with vacuum-assisted-closure therapy to prevent major amputation -- A 4-year experience review.***

**PURPOSE:**

This retrospective study is to evaluate the long-term result of applying VAC therapy in the management of diabetic foot ulcers.

**METHOD:**

From 2000 to 2005, the author began to introduce VAC therapy into the treatment planning for complex diabetic foot ulcer (Wagner Gr II at least, with TcPo<sub>2</sub> above 30 mmHg). Following adequate debridement(s), VAC therapy was applied to enhance tissue regeneration of the defect. Depending on the progression of wound healing, 6 to 10 therapies were applied. The defect was transformed from a deep, complex one to a superficial one and wound healing was then achieved with either conservative care or simple skin graft or local flap repair. Follow-up period ranged from 6 months to 2 year 10 months.

**RESULT:**

There are totally 23 patients in this series. In 5 patients, VAC was applied to the difficult healing stump ulcer after below-knee amputation. Four of the five patients got complete and stable healing with prosthesis fitting. In the other 18 patients, VAC was applied to the complex defects in the feet after debridement. Successful healing was achieved in 16 of the 18 patients. Ambulation was preserved in 13 of the 16 patients. Debilitated medical situations deprived the other three from ambulation.

**CONCLUSION**

This retrospective clinical review approved the significant role of VAC in the salvage of diabetic foot from major amputation.