

Case reports on the use of TNP Therapy (WoundASSIST® TNP System, ArjoHuntleigh)

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Background

Topical negative pressure (TNP) therapy was first described by Argenta and Morykwas¹. It has been shown that this technique stimulates the formation of granulation tissue, improves epithelialization, controls bacterial contamination and removes exudate.

Case presentations

This poster highlights two cases of successful management of poor wound healing utilizing TNP therapy.

Case report 1

A 75-year-old female patient presented with a wound healing disturbance after vulvectomy and lymphadenectomy on both sides in our hospital.

The first surgical procedure took place on the 4th May 2010: a hemivulvectomy with excision of the clitoris and an inguinal lymphadenectomy to both sides was performed. Wound healing to the inguinal area began to deteriorate.

On the 14th May, secondary suturing to the vulvectomy and inguinal area was performed together with a pelvic lymphadenectomy. (Fig 1-4)

Patient was treated with a gauze-based TNP therapy system (WoundASSIST TNP system, ArjoHuntleigh). After a few days, the wound status improved and signs of wound infection as well as wound exudate were reduced.

On the 4th June secondary wound closure to the inguinal area was performed. Over the next few days the patient developed fever and raised inflammatory markers. Redness to the left thigh was also visible. On the 26th June the patient underwent drainage of an abscess that had developed within the wound. TNP was reinstated in order to clean the wound and to manage exudate. Finally on the 15th July a mesh graft was used to close the wound and the patient was discharged home on the 24th July with a stable wound.

Pictures Case report 1



Fig 1



Fig 2



Fig 3



Fig 4



Fig 5



Fig 6



Fig 7



Fig 8

Pictures Case report 2



Fig 1



Fig 2



Fig 3



Fig 4



Fig 5



Fig 6



Fig 7



Fig 8

Case report 2

The second case, a 61-year-old female patient had a perianal abscess and was treated with TNP therapy.

Ms. H. admitted on 6th of March and immediately underwent surgical debridement, the wound was sealed and TNP therapy was commenced. During the course of TNP therapy an additional 16 wound debridements were necessary in order to remove devitalised tissue content. After treatment, the wound bed showed healthy red granulating tissue with minimal clear exudate. On 21st of May treatment was continued on an outpatient basis. Weekly dressing changes were performed in our ambulance department to control healing, all other dressing changes were performed at home by the trained daughter. This continued for 3 weeks with anti-microbial gauze. Dermacyn® Wound care from Fribamed was used for disinfection and wound cleaning. Since then the Wound treatment continued with Mepilex® Border from Mölnlycke GmbH.

Increasing quality of life

In order to measure quality of life aspects in both patients, we used the Würzburger Wound Score² at the beginning of treatment with TNP, at the mid point of treatment and at the end of treatment with TNP. This wound score has 17 questions which the patients use in order to evaluate their own quality of life. In addition to this pain was assessed at each dressing change using a visual analogue scale (VAS). By the end of treatment pain scores and patient quality of life indicators had clearly improved.

Conclusion

Both cases showed that TNP therapy is a safe and effective method to reduce wound size. Additionally, the method is easy to use for patients and assists the quality of life.

References

- 1 Argenta LC, Morykwas MJ: *Ann Plast Surg* 1997, **38**: 563-576
- 2 Spech E, Faller H, Franke A, Thiede A, Debus ES (2003) Der Würzburger Wundscore (WWS): *Ein neuer Lebensqualitätsfragebogen. Zeitschrift für Wundheilung* **8**: 40-42

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