Linking challenges in wound healing: key highlights from the Hartmann congress

With a special focus on advanced wound healing (wound bed preparation, epithelialisation and hydration) and negative pressure wound therapy, the Hartmann LINK for Wound Healing Congress took place in Belfast, Northern Ireland, on 19 September. The event aimed to promote the latest advances in wound care and highlight the main challenges that clinicians face when treating different types of wounds. **Annabel De Coster**, editor of the *British Journal of Community Nursing*, gives an overview of selected talks from the congress.

In September 2017, Hartmann held the first LINK Wound Healing Congress in Belfast, Northern Ireland. Attended by almost 300 delegates from around the world, this inaugural event sought to promote the latest advances in wound care management. It comprised two concurrent streams: advanced wound healing and negative pressure wound therapy (NPWT). Hartmann's acronym, LINK, stands for the values of learning, informing, networking and knowledge-building in the wound-care community, and the day's talks certainly helped achieve these.

Treating an exposed tendon with hydro-responsive wound dressings

A key session of the advanced wound healing stream, 'Obtaining epithelialisation,' addressed subjects such as wound bed preparation, epithelialisation and hydration. It included a talk by Sharron Cole, Vascular Clinical Nurse Specialist at Black Country Vascular Centre, Russells Hall Hospital, The Dudley Group NHS Foundation Trust, who discussed the main issues of treating an exposed tendon to the forefoot.

Open wounds with an exposed tendon situated on the lower leg present a significant challenge to clinicians, she explained. Of great importance is that the location of the wound may impede mobility of the tendon and lead to chronic inflammation that could delay wound closure. Tendons are nourished by blood vessels and diffusion of nutrients from synovial fluid, and exposure of this structure to air will cause desiccation, subsequent tissue necrosis, and infection.[1] Therefore, these types of wounds require a treatment regimen that will promote the development of granulation tissue and ultimately enable re-epithelialisation and coverage of the exposed tendon as quickly as possible.

Cole presented a case study describing how HydroTac —a hydro-responsive wound dressing (HRWD) that helps increase the activity of epithelial cells—successfully treated a 69-year-old man with a painful lower extremity chronic wound and exposed tendon. Exudate levels were moderate-to-high and the primary clinical challenge was desiccation prevention, while maintaining optimum moisture balance. The patient also suffered pain both at and between dressing changes, which adversely impacted their quality of life, hence atraumatic removal was of high importance to the patient. After three days of treatment with the HRWD, the wound showed an improvement in the appearance of the tendons and wound bed. Subsequent dressing changes (over the following few months) demonstrated an improvement in the tendons and a significant amount of granulation tissue was formed so that, eventually, the tendons were completely re-covered in healthy wound tissue.

Cole highlighted that the treatment provided a combination of absorption and moisture donation. Furthermore, the HRWD was soothing and comforting to the patient, reducing the need for opiate analgesia, improving patient confidence and aiding concordance with treatment. Desiccation and necrosis damage to tendons was prevented and the wound bed kept in a balanced, moist environment, enabling optimisation of healing.

A new approach to treating diabetic foot ulcers

Another key session of the advanced wound healing stream, 'HydroTherapy,' evaluated the impact of two HRWDs (HydroClean plus and HydroTac) in wound bed preparation and promotion of healing in patients with diabetes. Here, Dr Paul Chadwick, National Clinical Director at the College of Podiatry, presented a new approach to treating diabetic foot ulcers (DFUs).

Patients with diabetes are susceptible to foot ulcers, which can often require surgery to treat the vascular disorder. In addition, healing in these wounds is compromised by the underlying pathology.[2,3]

Fig 1. From left to right: speakers Sharron Cole, Paul Chadwick and Martin Hutan at the LINK for Wound Healing Congress in Belfast, Northern Ireland

Chadwick's talk introduced a series of case studies, showing how HRWDs could have a positive impact on patients with wounds where healing was compromised by diabetes and other underlying comorbidities.

Patients undergoing routine treatment for their wounds, but specifically in need of removal of devitalised tissue, were entered into the evaluation. A total of 10 patients with wounds associated with diabetes (such as DFUs, post-surgical dehisced and post-amputation wounds) were treated with HRWDs (HydroClean plus) over a period of one month. HRWDs were used to remove devitalised tissue and prepare the wound bed for the second phase, re-epithelialisation and healing. In some patients, a second HRWD (HydroTac) was then used to enable healing progression. Both qualitative and quantitative evaluation of the impact of HRWDs was undertaken.

The results showed that the HRWDs effectively and rapidly removed the majority of the devitalised tissue in all of the patients, supporting good wound bed preparation and promoting healing. In one patient with dehisced surgical wounds, subsequent treatment with HydroTac enabled rapid re-epithelialisation and healing, negating the need for amputation.

Chadwick concluded that HydroClean plus enabled debridement of devascularised tissue, supporting wound bed preparation. Also, the use of HydroTac in some instances promoted a rapid healing response. Importantly, the hydrotherapy concept using HydroClean plus and HydroTac was effective in preventing further damage and amputation in potentially limb-threatening cases.

A holistic approach to negative pressure wound therapy

Among the key presentations of the NPWT stream was 'Place of NPWT in the algorithms of wound healing.' Presented by Martin Hutan, from Hainburg and der Donau, Austria, this talk reviewed the place and significance of NPWT in a holistic view of wound healing.

Hutan stated that NPWT cannot be thought of as a sole method for the wound healing algorithm. Its use should be rationally combined with other methods of modern wound healing. Surgical treatment, NPWT and advanced wound healing products in combination were referred to as the 'three musketeers.'

The possible combinations of use with other products were presented and the effective place of NPWT in wound healing was explored. The importance of going back to basics and considering not only the systemic and local treatment aspects in wound healing, but also the holistic aspect of care, must be addressed.

Summary

The Hartmann LINK for Wound Healing Congress was a good opportunity for professionals working in wound healing from across the globe. The delegates, who travelled from as far as China and the US, had a great opportunity to learn and plenty of chances to network with international colleagues. It is hoped that future LINK congresses will offer a similar quality of learning and entertainment. **JWC**

References

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3 Game FL, Jeffcoate WJ. Dressing and Diabetic Foot Ulcers: A current review of the evidence. Plast Reconstr Surg 2016; 138 (3Suppl):158S-64S. http://doi.org/10.1097/PRS.0000000000002681

Reflective questions

- Reflect on the importance of keeping a balanced, moist healing environment to enable wound healing. What techniques do you currently use to achieve this?
- When treating diabetic foot ulcers, what is the standard treatment in your practice? How can that approach be improved?
- Think about the different uses of negative pressure wound therapy, and consider how to use it in combination with other systems of modern wound healing.