Hydro Responsive Wound Dressings in the treatment and management of myxoid liposarcoma

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Introduction

Rapid cleansing, early granulation and sustained epithelialisation are key requirements for the efficient healing of chronic wounds and wounds with impaired healing. Wound bed preparation offers a systematic framework to aid clinicians in their goal of progressing wounds from impairment to healing. HydroTherapy is an innovative approach to the treatment of wounds, where a harmonised, two-step therapy harnesses optimised hydration at all stages of the healing response to promote wound progression and healing⁴.

The aim of the case study is to illustrate the use of HydroTherapy also known as hydro-responsive wound dressings (HRWD) on a 26-year-old gentleman who had excision of a myxoid liposarcoma from his left medial thigh.

A myxoid liposarcoma is a malignant adipose tissue neoplasm of myxoid appearance appearance histologically. Myxoid liposarcomas are the second-most common type of liposarcoma, representing 30–40% of all liposarcomas in the limbs, occurring most commonly in the legs, particularly the thigh, followed by the buttocks, retroperitoneum, trunk, ankle, proximal limb girdle, head and neck, and wrist. They occur in the intermuscular fascial planes or deep-seated areas. They present as a large, slow-growing, painless mass².

Methods

Patient case study commenced March 2018.

On review at the Sarcoma Clinic on the 26/3/2018 he was now approximately 8 weeks post-surgery. The patient's wound was malodourous, the exudate levels were high, the wound was painful and the patient was finding the lack of progress and ongoing infection very concerning. It also had also had an impact in his work life as due to the issues above he felt that he could not work. A myxoid liposarcoma is a cancer of the connective tissue; this sub-type is radiotherapy sensitive so he had undergone pre-operative radiotherapy then surgical excision. This can cause wound healing problems post-surgery Patient consent was obtained, the treatment goal was to manage the exudate from the seroma which had formed following the removal of the sarcoma and manage the infection, reduce the slough, promote granulation using the HRWD and help reduce the wound pain the patient was experiencing. Lastly, to get the wound managed adequately enough for him to return to work and improve his quality of life.

References:

1. Dangor, A. Seddon, B. Gerrand, C. Grimer, R. Wheelan J. and Judson, I. (2016) UK guidelines for the management of soft tissue sarcoma, clinical sarcoma research. 2. Sung; et al. (2000). "Myxoid Liposarcoma: Appearance at MR Imaging with Histologic Correlation". RadioGraphics 20. http://pubs.rsna.org/doi/full/10.1148/radiographics.20.4.g00jl021007 3. Junker JP, Kamel RA, Caterson EJ, et al (2013) Clinical impact upon wound healing and inflammation in moist, wet, and dry environments. Adv Wound Care (New Rochelle) 2(7): 348–56 4. Ousey K, Rippon MG, Rogers AA (2016) HydroTherapy Made Easy. London: Wounds UK. Available from: *www.wounds-uk.com*

Results

March 2018 Wound measurements 8.5x4cm 90% sloughy tissue, x% granulation tissue discoloured, high levels of exudate and odour, Surrounding skin healthy but wound margins discoloured. A Hydrofiber and a Super-Absorbent dressing were applied for 3 weeks with no change and a wound swab identified Staphylococcus aureus infection present as a result he was commenced on a course of oral antibiotics. At this point, a review was made by the Tissue Viability Team and HRWD was commenced. It was deemed as an appropriate dressing as it can cleanse, debride and absorb exudate and slough whilst maintaining an optimal wound healing environment³. The treatment goal was to promote granulation of the wound and reduce the pain he was experiencing. Dressings were performed 3 times a week and this was commenced on 26/3/2018.

14.4.2018 - The wound measured 7.5x2cm wound: oral antibiotics completed. The HRWD continued with a secondary dressing was provided in the format of an absorbent dressing to cover there was 98% granulation tissue and 2% slough.

6.6.2018 - HRWD continued the wound measured 6.5x2.5cm 6cm x1cm granulation tissue slough 0%

11.7.2018 - The wound now measures 4x1cm of granulating tissue with no depth

1.8.2018 - This was the patients last appointment at the wound clinic and the wound was reported as healed.

March '18



April '18



May '18



June '18



March '18 (Close up)



April '18 (Close up)



May '18 (Close up)



June '18 (Close up)



The HRWD continued three times a week over a 5-month period with significant reduction in slough, exudate and pain. The patient also self-managed his wound with a weekly visit to the sarcoma clinic for emotional support and encouragement.

The patient did not require surgical debridement of the wound under general anaesthetic due to the efficacy of the dressings, wound pain reduced significantly. The wound continues to heal and the patient is happy to continue with twice weekly dressings.

Conclusion

This case study demonstrates that the patient had an improved quality of life, reduced odour from the wound enabling our patient to feel well enough to return to work. Due to these results we are looking to providing other patients with pre-operative radiotherapy wound complications with these dressings.