

Clinical management of malodorous dehiscent abdomens using Manuka honey

Written by Bethan Andrews - Tissue Viability Nurse Practitioner & Claire Williams - Tissue Viability Clinical Nurse Specialist

As Tissue Viability Nurses we must recognise the psychological effect that wounds, being chronic or acute have on our patients. Feugier (1988) suggest that wounding, particularly long-term damage to the integrity of the body will inevitably leave emotional as well as physical scars. Any patient with a wound has a right to expect a good minimum standard of care regardless of aetiology of their wound (Fletcher, 2006). Therefore it is our duty to support or patients' psychological wellbeing as equally as their physical needs. This issue came to light particularly with two patients that had similar issues with their wounds.

Mr A

A 60 year old gentleman was admitted to the local District General Hospital with sudden onset of lower abdominal pain. His past medical history showed hypertension, CCF, Diverticular disease and obesity. He was diagnosed with a perforated diverticulum. A Hartman's procedure was performed; post operative he was admitted to ITU. Two weeks post surgery the abdominal wound dehiscent mid suture line.



Due to infection and high exudate topical negative pressure therapy was applied. The bowel was covered with a peritoneum layer but due to the patients' poor general condition it was decided to cover the deficit with a tissue implant (Strattice). Strattice is a sterile

reconstructive tissue matrix that supports tissue regeneration. Derived from porcine dermis, it undergoes non-damaging proprietary processing that removes cells and significantly reduces the key component believed to play a major role in the xenogeneic rejection response it is an alternative to prosthetic mesh. Closure of the wound was delayed due to the oedema that was secondary to critical CCF low albumin.



Due to infection and fat necrosis the implant failed and had to be removed. The exudate levels increased but what was most distressing for the patient and his family was the odour from the wound. Even though the patient was in a side room the odour during dressing change was evident throughout the ward. TNP was still being used and was coping well with the exudate but was not dealing with



the odour. It was decided to try an antimicrobial wound contact liner to try to compact the odour. The dressing of choice was a honey based non-adherent dressing (Actilite®, Advancis Medical).

Within the time it took for the next dressing change (4 days post honey) the odour had started to reduce, also the exudate had reduced in amount. There was still an odour during dressing change but not as offensive as before. The patients' mood had lifted, he felt something was being done and now he could see and smell the change.



The next dressing change (8 days post honey) there was hardly any odour. The exudate was minimal and the granulation tissue looked red and healthy. It was decided to stop the TNP and continue with Actilite® and a highly absorbent dressing (Eclipse®, Advancis Medical).



The patient was referred to the plastic surgeons. Due to the wound being infection free and with healthy granulation tissue a successful skin graft was performed.

Honey has been used in wound care for millennia but since the introduction of antibiotics in the 1940s' the use of honey had become passé (Molan, 2002), but with the growing body of research and positive clinical outcomes honey is seeing a new lease of life. Honey is a potent antibacterial agent, it deodorises wounds because bacteria prefer sugar to protein. The metabolic action helps reduce odour as lactic acid is produced instead of amino and sulphurs.

When the honey based non-adherent dressing (Actilite®) was placed under the NPWT dressing we found that the odour reduced dramatically, even the exudate levels reduced. The patients' mood improved and he started to feel positive about his health and well being. When his emotional health improved so his wound began to heal.

Mrs B

Patient admitted to District General Hospital for assessment and management of a chronic abdominal wound. The patient had an umbilical hernia for over 25 years. She had no complaints regarding the hernia but over the last 6 months she had developed nodule in the lower fold of her abdomen. She then developed cellulitis the nodule had become infected and had broken down causing a wound. The wound was not healing and increasing in size. It was decided for the lady to be admitted for a wound debridement and washout. The wound was debrided in theatre along with a para umbilical hernia repair and an apronectomy.



She unfortunately had risk factors of delayed healing. She was clinically obese, diabetic and on steroids. 11 days post operatively her wound dehiscent when the clips were removed.

The treatment of choice was topical negative therapy due to the size of the wound and very heavy exudate. A wound swab was taken and the results came back as follows staph aureus ++, Strep Gp ++ and Proteus sp ++. She had been prescribed IV antibiotics.

Due to the size of the wound and factors delaying healing we explained to the patient that this would take a long time to heal. She realised this but was very keen to go home.



We tried various types of TNP from gauze to foam then back to gauze based dressings. This wound had become challenging to both patient and us. What was very evident was the odour had

increased, so much so she had stopped her grandchildren visiting.



As we had success with another patient we decided to line the wound bed with an antimicrobial wound contact liner to try to compact the odour. The dressing of choice was a honey based non-adherent dressing (Actilite®).



The change in the wound was not as rapid as the other patient but this wound was more challenging. Within 17 days the wound bed looked cleaner and healthier. What was the most important to the patient the smell had reduced.



We realised that this wound will take a long time to heal but the patient now felt able to cope because the odour had gone. As the exudate levels had also reduced we were able to discharge the patient home with Actilite® and a highly absorbent dressing (Eclipse®). It has been 5 months and the wound is healing well, the patient had a choice

to be referred to the plastic surgeons for skin grafting. Mrs. B has had enough of being in hospital and is happy to continue with the same dressing regime.

This episode in Mrs B's life has been very difficult to cope with. She had been very depressed and fed up with the situation, but as soon we could control the odour she began to feel positive about her life. She realised that the wound would take a long time to heal but it was the smell that caused the most stress for her and her family.

Discussion

Malodour in wounds can be challenging for the clinicians and distressing for the patient and family. Honey controls malodour by both inhibiting bacterial growth and providing an alternative source of fuel (glucose) for bacteria, rather than tissue proteins which cause release of ammonia, amines and sulphur compounds (White and Molan, 2005). Honey has proven to be a crucial arsenal in the fight to combat odour in wound healing.

References

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