Flaminal® and NPWT used in the Management of an Infected Dehiscence Breast Reconstruction Wound

Georgina McKay, Specialist Tissue Viability Nurse, Care Plus Group. Paula Smith, Tissue Viability Nurse, Care Plus Group.

Introduction

Breast cancer is the most common cancer in the UK with 55,200 new cases per year, averaging around 150 every day (2015-2017) [1].

Breast cancer is defined as either invasive or non-invasive (in-situ). Invasive breast cancer signifies that the cancer cells have migrated from the milk ducts or lobules and have invaded the surrounding breast tissue. Alternatively, the non-invasive cancer is contained within the ducts and lobules. The exact cause of breast cancer remains unknown however there are associated risk factors, including; age, hormones, obesity, increased alcohol intake and smoking.[2]

Symptoms of breast cancer range from breast lumps, a change in size or shape, discharging or a change in appearance of the nipples and dimpling of the skin. Breast cancer is usually diagnosed with a mammography or by taking a tissue sample biopsy.[3]

The treatment options depend upon the type of breast cancer and stage but many will involve surgery. A Lumpectomy eliminates the breast lump and radiotherapy follows. Whereby a mastectomy encompasses removal of all the breast tissue; often referred to as simple mastectomy. Finally, a radical mastectomy, performed much less frequently nowadays, involves removal of the axillary lymph nodes, the chest wall muscle in addition to the breast.[4]

This case involves a 56 year old, fully independent female, who underwent surgery for the removal of a breast tumour with accompanying reconstruction. Following surgery the wound became infected resulting in dehiscence and four weeks later the patient was subsequently referred to the Tissue Viability Nurse Specialist. Wound dehiscence causes are commonly categorised into either; technical issues, including unravelling of the suture knot, mechanical stress resulting in rupture of the sutures through coughing or strain or disruptive healing which includes co-morbidities and infection[5].

At the point of examination by the Tissue Viability Nurse Specialist, the wound measured 8 x 3.5cm with a depth of 2.5cm; the wound bed consisted of 40% slough and 60% granulation tissue. There were moderate levels of sanguinous exudate, some malodour and surrounding erythema.

Antimicrobial primary topical dressings had previously been introduced to support wound healing and these included honey based dressings and a hydrofibre containing silver.

Method

The treatment objectives were to autolytically debride the sloughy tissue, whilst protecting the fragile newly formed granulation tissue. Devitalised tissue acts as a physical barrier to wound healing and can serve as a nutrient for bacteria. To treat infection coupled with reducing the bacterial bio-burden and to manage exudate levels. Consideration was also given to the inclusion of Negative Pressure Wound Therapy (NPWT). This particular system helps to promote healing by delivering negative pressure to the wound surface and surrounding tissue.

The Tissue Viability Nurse Specialists wound management plan encompassed wound irrigation using a polyhexamethylene biguanide (PHMB) cleansing solution and the application of Flaminal® Forte primary dressing to support autolytic debridement and reduce the bacterial burden. Flaminal® Forte was applied directly into the cavity and a secondary wound filler was not required. The NPWT was also introduced and to this end a single use, portable therapy system was selected.

Result

The wound management regimen continued for a period of eleven weeks, with dressing changes being completed bi-weekly. There was no episodes of infection throughout the treatment journey and the devitalised tissue was successfully debrided using Flaminal® Forte, which also facilitated uninterrupted NPWT treatment. At end of this period the wound had completely healed.

Discussion

1 in 7 of UK females will be diagnosed with breast cancer in their lifetime with those in the over fifties bracket being the most at risk and many requiring surgical intervention [1]. Additionally, the complication of surgical wound dehiscence (SWD) poses a significant issue and affects large numbers of patients; inflicting considerable consequences on the patients physical and psychosocial well being [5].

Conclusion

Flaminal® Forte is a novel antimicrobial agent that due to its unique composition can be used throughout the wound healing continuum. This case study highlights its multifaceted ability to optimise wound healing. Flaminal®s' versatility enables it to be employed as an antimicrobial primary dressing as well as supporting secondary advanced wound management systems.

The Tissue Viability Nurse Specialist concluded that dressing changes were uncomplicated yet effective and weren't traumatic for the patient. Flaminal® achieved the treatment objectives and the patient acknowledged its soothing ability; greatly reducing pain and ultimately improving quality of life.

References
1. Cancer Research UK (2020) www.cancerresearchuk.org
2. Macmillan Cancer Support (2018) www.macmillan.org.uk/cancer-information-and-support/breast-cancer
3. NHS. UK (2019) www.nhs.uk/conditions/breast-cancer/symptoms
4. Stoppler, M.C (2020) Breast Cancer Treatment Guidelines. Medicinenet. https://www.medicinenet.com/breast_cancer/treatment
5. Ousey, K. (2018) Surgical wound dehiscence. Improving prevention and outcomes. Wounds International

7th March 2019

4th April 2019

24th May 2019

Flen Health
advanced skin healing