THE MANAGEMENT OF A LEG WOUND WITH FLAMINAL HYDRO FOLLOWING A TISSUE TRANSFER OF THE FIBULA BONE, ITS VASCULAR PEDICLE, AND SOFT TISSUE/SKIN FROM THE LEG DONOR SITE

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Introduction

Oral and oropharyngeal cancer, grouped together is the sixth most common cancer in the world and more than 90% of all oral cancers in the upper aerodigestive tract are of the squamous cell type.[1] In 2013 there were around 7,600 new cases of oral cancer in the United Kingdom with oral cancer accounting for 2% of all new cases of cancer diagnosed. Almost half (45%) of oral cancer cases in the United Kingdom each year are diagnosed in people aged 65 and over and smoking is the main avoidable risk factor, linked to an estimated 65% of these cancers.[2]

This case study describes the journey of Mr S, a 72-year-old gentleman, who presented to his doctor with a painless lump in the mouth which had been there for almost a month. Clinical examination of the mouth revealed an endophytic ulcerated area of the mucosa over the edentulous mandible on the region of the LL7, LL8 (left lower teeth area) approximately 2 cm in diameter, with a larger submucosal component. A biopsy confirmed Mr S's diagnosis as squamous cell carcinoma of the left mandibular alveolus stage T2N0 (tumour > 2 cm but < 4 cm, with no evidence of cancer cells in the lymph nodes). He required a resection of the carcinoma and reconstruction of the skin and bone with a vascularised fibula osteocutaneous free flap.

Fibula osteocutaneous free flap for mandibular reconstruction is a free tissue transfer of the fibula bone, its vascular pedicle, and soft tissue/skin from the leg (donor site) to another site in the body (recipient site). As a microvascular procedure it requires harvesting the blood vessels that supply the tissue at the donor site (leg), removing the supplying artery/veins intact with the graft, and re-anastomosing them to a new blood supply at the recipient site.[3]

Mr. S lived alone as a widower, had a history of high blood pressure, for which he was receiving no current treatment, and smoked 20 cigarettes a day. He was able to walk to the city centre at least once a week without any problems.

On hospital discharge Mr. S's left leg donor site wound (24 cm x 11 cm x 7 mm) required continuing treatment by the community nurse as there was a small area of breakdown (9 cm x 1.5 cm x 3 mm) along the bottom left edge of the donor site that was open and wet, but no infection was detected.

When he attended in clinic after two weeks as a routine follow up the donor site had significantly deteriorated and Mr. S informed me that the community nurse had not visited him to treat the wound. On cleaning the wound I was surprised to see it didn't appear to be infected and there was no wetness to the wound.

Method

The wound was dressed with Flaminal Hydro (Flen Health, UK), an enzyme alginogel indicated for low to moderately exuding wounds, and covered with an absorbent border dressing to manage the exudate. I arranged to see Mr. S in clinic again 3 days later.

Results

Mr. S tolerated the dressing regimen well and there was a marked improvement within the first three days. He was then seen in clinic 3 times per week until the wound was healed after 6 weeks, at which point no further dressing was required.

12/04/16

15/04/16

13/05/16

27/05/16

Discussion

Although the fibula osteocutaneous flap is versatile and relatively easy to perform, both early and long-term donor site morbidity have been reported with this flap. The reported incidence of donor site complication with the fibula free flap has been variable, ranging from 0% to 33%.[3]

An expert panel has reviewed all available evidence for Flaminal and has prioritised the use of Flaminal enzyme alginogels to four key functions: continuous wound debridement, antimicrobial activity, maintenance of a moist wound healing environment, and protection of wound edges and epithelial cells. Flaminal's multiple modes of action also avoid the need for numerous products.[4]

Conclusion

This case study demonstrates the effectiveness of an enzyme alginogel in assisting wound healing in the management of a donor site wound following tissue transfer of the fibula bone, its vascular pedicle, and soft tissue/skin from the leg.

References

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