The Healing Power of Nature

Successful Treatment Algorithm of Chronic Perineal Hidradenitis Suppurativa with Intact Fish Skin Xenograft*: A Case Study

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INTRODUCTION

Dermal substitutes coupled with split-thickness skin grafts are a primary method of treating large surface area Hidradenitis suppurativa (HS) that involves the perineal area. HS is a painful chronic recalcitrant inflammatory and fistulizing condition, often progressing to intractable pain, scarring and sepsis. Recent advances in the treatment of HS have involved novel approaches such as retinoids biologics, and antibiotics. Despite this, Hidradenitis involving a large surface area of the perineum may require surgical excision with grafting. In this case report, a patient presented with a chronic recurring perineal HS with extensive scarring. Our treatment algorithm utilized the novel fish skin graft in conjunction with weekly debridement. This acellular dermal matrix contributed to excellent wound contraction, control of exudate, and our observation of minimized pain.

OBJECTIVE

Evaluate wound contraction benefits of fish skin graft in the management of large surface area Hidradenitis Suppurative of the perineum.

METHODS

A 56-year-old male presented with chronic extensive HS involving the perineal and buttock area. The patient underwent weekly operative excision and debridement with application of fish skin graft over a period of 7 weeks. Wound surface area was measured and photographed using Image J software. Secondary observations included exudate amount, pain, and infection.

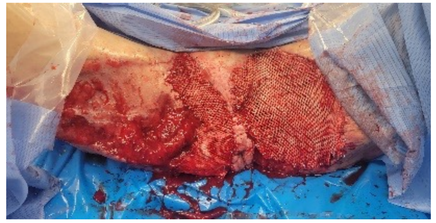
*Kerecis™, Kerecis, Isafjordur, Iceland

CASE : 56-YEAR-OLD MALE CHRONIC PERINEAL HIDRADENITIS SUPPURATIVA

Initial presentation pre debridement

Post debridement

First fish skin graft application



Third application of fish skin graft – moderate wound contracture

Fourth application of fish skin graft – minimal wound contracture

Fifth application of fish skin graft – wound contracture

RESULTS

Patient results following 7 weekly excisional procedures with fish skin graft applications showed significant decrease in total surface area each week at the time of follow up. The median weekly surface area reduction was 38 cm2. The initial wound bed measured 750 cm2. At 7 weeks wound surface area reduction of 484 cm2; approximately 35.4% decrease in total surface area. The fish skin graft had 100% wound bed incorporation at the time of each weekly clinical evaluation. Other, secondary observations included a notable decrease in wound bed exudate as well as a robust increase in granulation tissue followed by each application of the fish skin graft. Further findings support a decrease in reported Subjective Pain, with an objective observation of tolerable bedside dressing changes and transition from intravenous to PO pain medication at 7 weeks.

CONCLUSIONS

Attempts at creating an optimal wound bed, decreasing wound bed exudate, and wound contraction is the mainstay of ensuring formidable autograft success. Incremental surgical intervention in patients with large surface area HS can be achieved with staged excision, debridement, and sequential use of intact fish skin grafting. Fish skin graft, due to its inherent antibacterial and antiviral properties, can decrease morbidity and mortality in HS patients. This case study demonstrated that when this fish skin acellular dermal matrix is used in conjunction with consistent wound care regiment, definitive wound contraction, exudate control, and minimized pain can be successfully achieved. More studies are needed to evaluate the effectiveness of the utilization of fish skin grafts in the treatment of HS.

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