Clinical Outcome of Porcine Intestinal Sub-Mucosa Usage, a Case Series.

Disclosure/Financial Support: None of the authors has a financial interest in any of the products, or drugs mentioned in this manuscript.

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INTRODUCTION: Porcine intestinal sub-mucosa matrix is an extra cellular collagen rich matrix derived from sub-mucosa of porcine intestine. It is composed of collagen type I, glycosaminoglycan and proteoglycans. Our case series study has shown the promising effect of porcine sub-mucosa matrix in healing of different kind of wounds.

OBJECTIVE: To test the clinical outcome of porcine sub-mucosa matrix when we use it in variety of wounds with different etiologies.

MATERIALS AND METHODS: This was an observational case series with prospective review of five different patients with different types of wounds who received this collagen rich matrix (sub-mucosa of porcine) during their treatment.

RESULTS: The first case, diabetic patient with complicated transmetatarsal amputation of gangrenous left forefoot with flaps closure. A total of 3 applications over the period of two months were needed to heal his wounds. The second case involved a patient with non-healing right leg ulcer. The pathology revealed Marjolin's ulcer (squamous cell carcinoma). After clearing the margins, two applications of sub-mucosa porcine matrix were needed over the period of 6 weeks to heal the wound. The third case involved an anticoagulated patient with right hand traumatic hematoma. Surgical debridement was done leaving her with exposed extensor tendons. One application of sub-mucosa porcine matrix was required to achieve complete healing in 4 weeks. The 4th case involved a patient with stage IV sacral coccygeal pressure wound. Three months later and after 11 applications of sub-mucosa porcine matrix, his wound healed. The last case, the patient was referred with a two year history of chronic venous ulcers at the medial aspect of his right leg. After ruling out malignancy and after 12 applications of the collagen matrix for a period of 3 months, the ulcers showed complete healing.

CONCLUSION: Wounds with different etiologies were successfully treated with porcine intestinal sub-mucosa matrix. By replacing the lost extracellular matrix to guide cellular growth and migration, porcine intestinal sub-mucosa matrix did ultimately fasten the healing process.

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