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OVINE EXTRACELLULAR MATRIX FOR LIMB SALVAGE IN COMPLEX LOWER LIMB WOUNDS: A SINGLE-CENTRE RETROSPECTIVE CASE SERIES

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BACKGROUND

Complex lower limb wounds remain a significant reconstructive challenge, particularly in patients with diabetes mellitus, peripheral arterial disease (PAD), and exposed critical structures. Achieving durable wound closure in this population is limited by impaired vascularity, poor tissue quality, and multiple medical comorbidities. Ovine extracellular matrix (OFM) scaffolds have emerged as a biologically derived reconstructive adjunct that supports angiogenesis, cellular infiltration, and tissue remodelling.

AIMS

This study evaluates early clinical outcomes of wounds treated with Myriad Matrix in a multidisciplinary limb-salvage population.

STUDY

19 WOUNDS

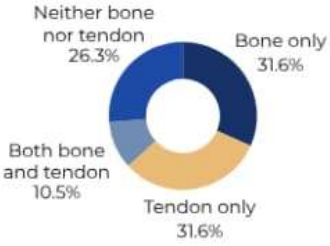
- **Study design: Retrospective cohort**
- **Single Tertiary Referral Centre**
- **Study period: Dec 2023 - Nov 2025**
- **Mean Age (years): 57.2 years**
- **Gender: 63.2 % Male**
  36.8% Female

WOUND CHARACTERISTICS

LOCATION



STRUCTURES EXPOSED

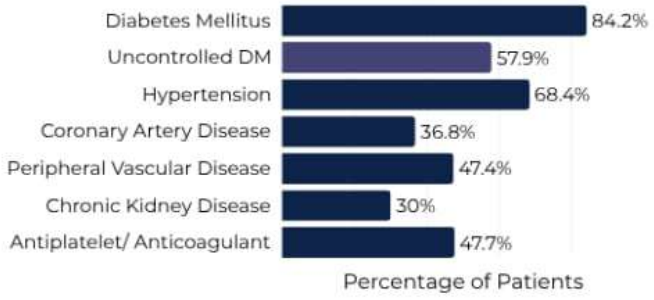


ETIOLOGY



Mean wound size	116.9 cm² +/- 116.1cm²
Chronic wounds >= 6 weeks	31.60%
Active infection at presentation	78.90%

PATIENT COMORBIDITIES



TREATMENT

- Number of applications (median) **1** (Range 1-3)
- Subsequent STSG **36.8%** (7/19 wounds)
- Number of debridements (median) **2** (Range 1-6)
- Graft take rate (median) **95%** (Range 30-100%)
- Time to first Myriad (median) **28 days** (Range 4-91 days)
- Revascularisation **72.7%** (8/11 wounds with PVD)

CLINICAL CASE EXAMPLES






Right posterior calf wound with exposed archillis tendon showing complete

OUTCOMES

PRIMARY OUTCOME

Definitive wound closure achieved in 17 wounds (89.5%)

METHOD OF CLOSURE





Presentation → Matrix Application → 4 weeks → Healed

healing by secondary intention

Left foot ray amputation wound healing with matrix application and skin grafting



Presentation → Matrix Application → Skin Graft → Healed



SECONDARY OUTCOMES

	Time to complete healing	5.8 months (Range 2.6-10.3 months)
	Complications	5 wounds (26.3%)
	Limb salvage rate	100.00%

CONCLUSION

Ovine Extracellular Matrix demonstrated favourable wound healing outcomes in a medically complex cohort with a high prevalence of diabetes, peripheral vascular disease, and exposed critical structures. Despite the severity of wounds treated, an overall healing rate of 89.5% was achieved, most commonly through secondary intention healing or subsequent skin grafting. These suggest that Ovine Extracellular Matrix may serve as a useful adjunct in the management of complex lower-extremity wounds.

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No conflicts of interest to disclose.