

Decellularized Fish Xenograft For Wound Bed Preparation Prior To Definitive Grafting Is Comparable To Allograft In A Propensity Score Matched Cohort At Increased Cost

Piper Schneider, B.A.¹, Julia Chrisbacher, B.S.¹, Keith Sweitzer, M.D¹., Derek Bell M.D.¹

¹ University of Rochester School of Medicine and Dentistry Department of Plastic and Reconstructive Surgery



University
of Rochester

INTRODUCTION

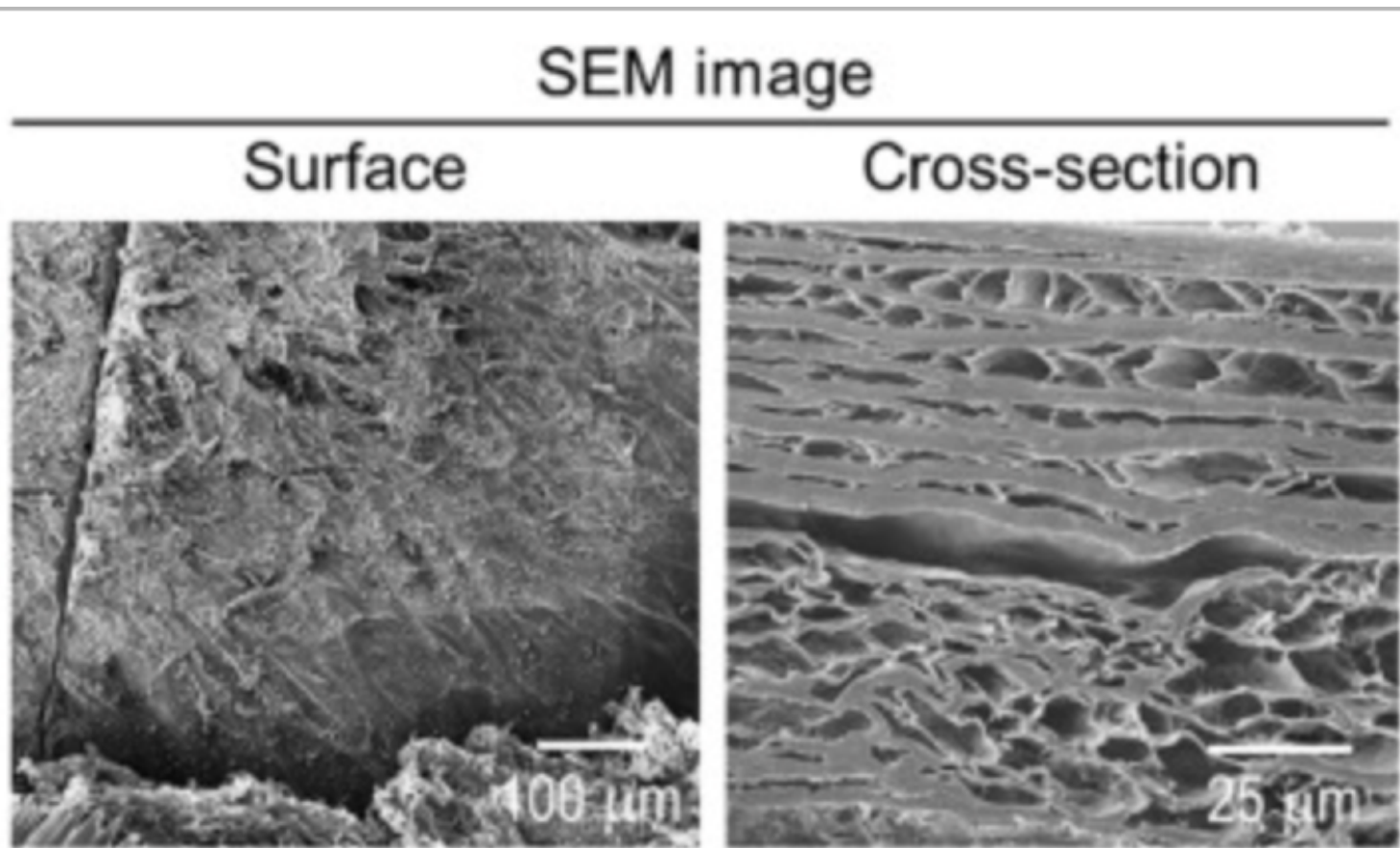
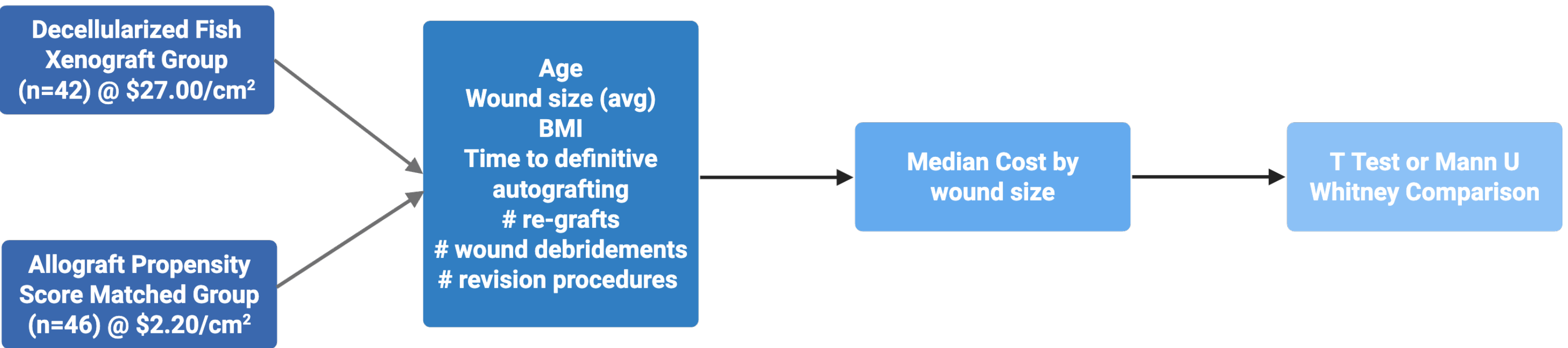


Figure 1 SEM image of Acellular Fish Xenograft highlighting porosity (Yoon et al 2022)

- Allograft is commonly used for preparation of burn/wound sites prior to definitive grafting
- This study compares clinical outcomes and costs between allograft and decellularized fish integument xenograft in the treatment of burns and wounds
- Previous studies comparing with bovine graft and allograft suggest fish xenograft may have faster re-epithelialization and time to healing

METHODS

- Retrospective review of patients treated with decellularized fish xenograft (n=42) or allograft (n=46) July 2022–2025
- Propensity score matched groups



RESULTS

- Decellularized fish xenograft group and allograft group demographics and wound sizes equivalent (Fig 2a)
- No differences between allograft and decellularized fish xenograft for days to definitive grafting (Fig 2b), Number of times re-grafted (Fig 2c), number of debridements (Fig 2d), and Number of Revision procedures (Fig 2e)
- Median cost was significantly higher for xenograft (\$2673.00) compared to allograft (\$312.40; U=125, p<0.0001) (Fig 2f)

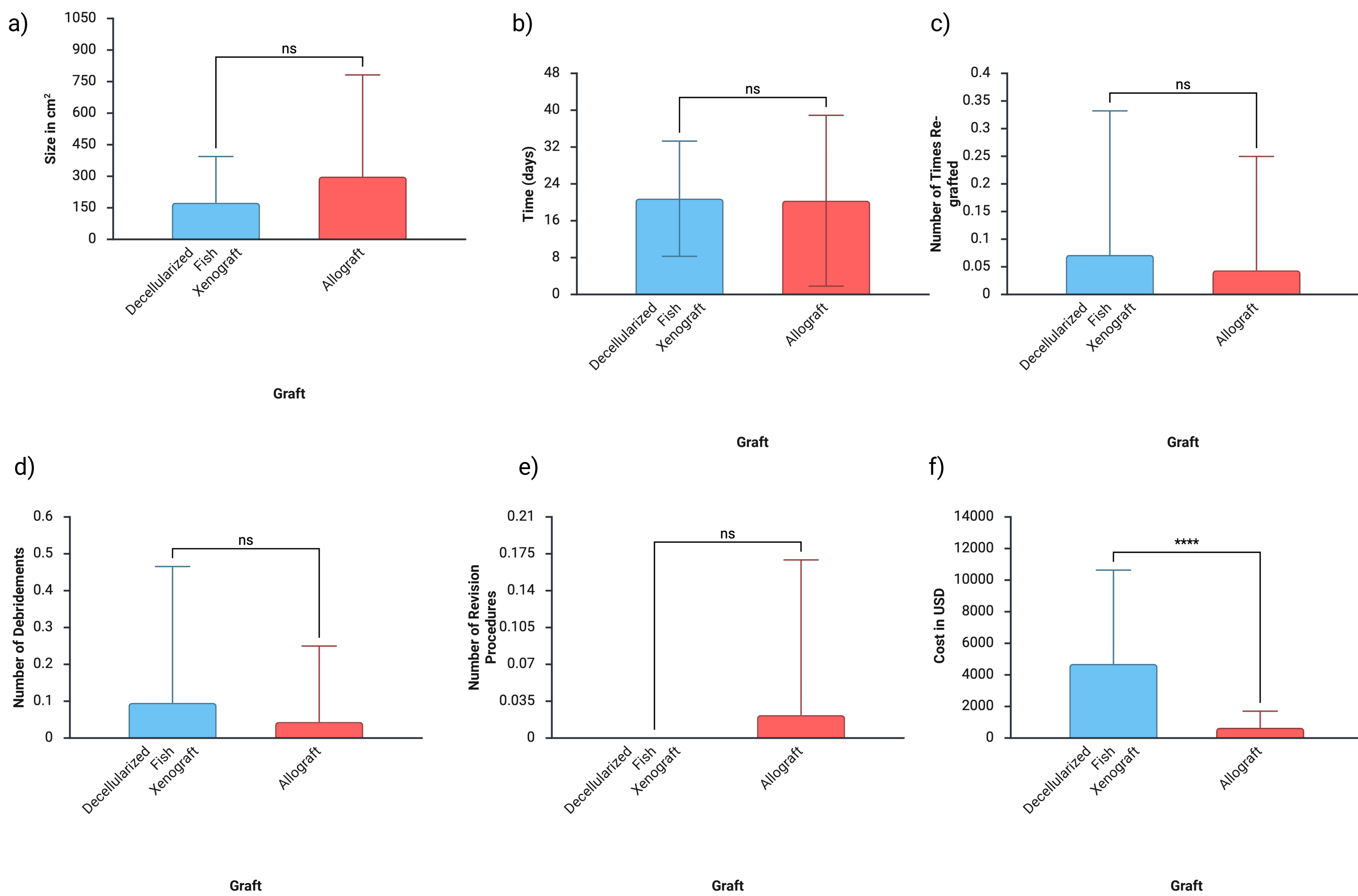


Figure 2 Decellularized Fish Xenograft is Clinically Equivalent to Allografting. In groups of comparable wound size (a), decellularized fish xenograft and allograft are equal in time to healing (b), number of grafts required (c), number of debridements (d), and number of revision procedures (e), though with increased cost of decellularized xenograft (f).

CONCLUSION & DISCUSSION

- Decellularized fish xenograft demonstrated clinically equivalent outcomes to allograft at higher cost, suggesting allografting is a more cost-effective choice
- May be more feasible alternative in the future if costs come down
 - Consider follow up study including post-op costs which may be lower for decellularized fish xenograft

DISCLOSURES

Dr. Derek Bell has two research grants with Avita Medical
None of the other authors have any financial relationships to disclose the past 24 months

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