

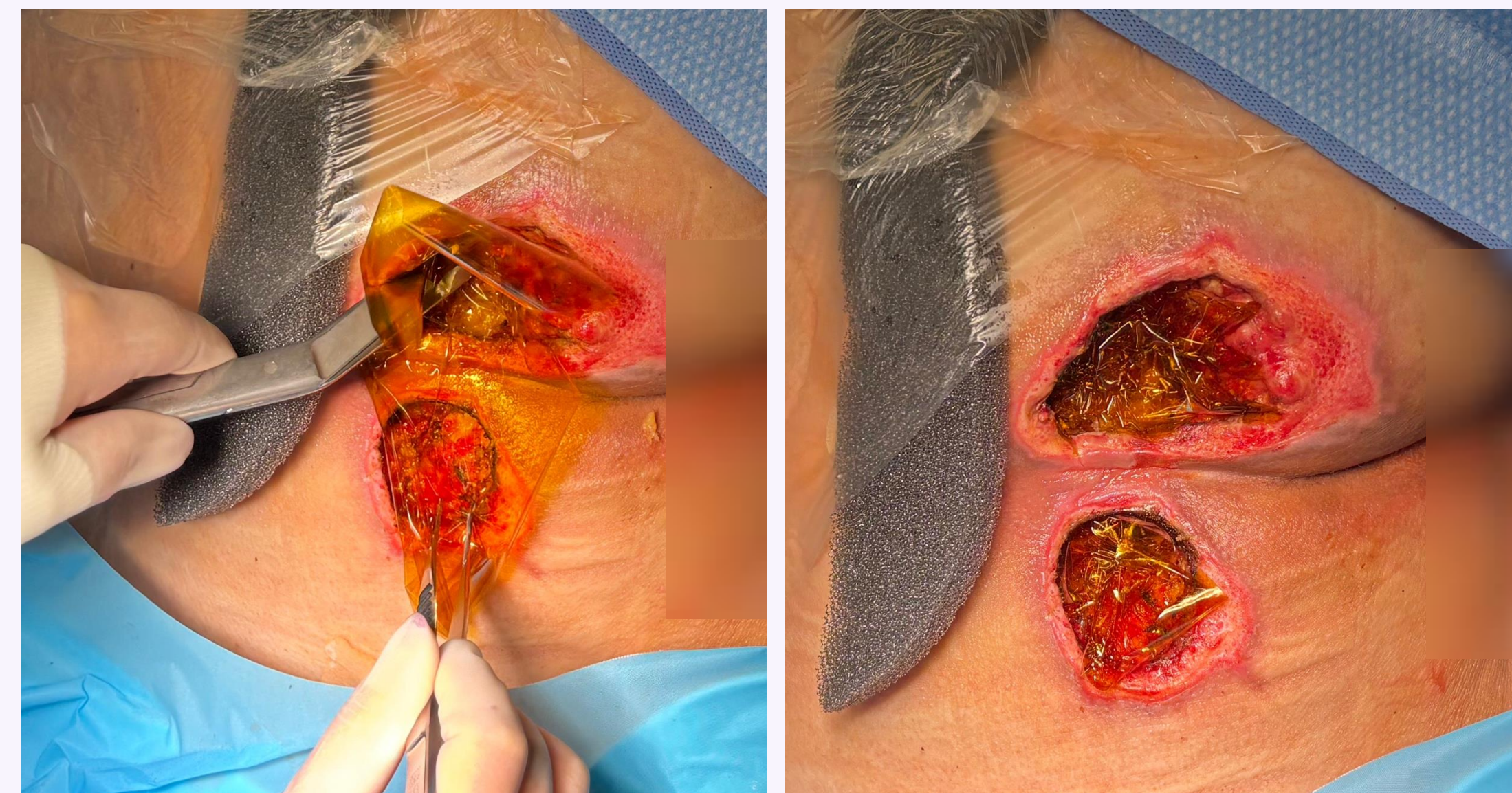
Managing Complex Infected Wounds with a Bioresorbable Antimicrobial Matrix

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Introduction

- Infection is a major cause of delayed healing and graft failure in complex wounds, particularly in patients with burns or necrotizing infections.
- A fully synthetic, bioresorbable antimicrobial matrix containing metallic and ionic silver has demonstrated the ability to reduce infection risk and support closure in high-risk wounds.



- This series highlights its application in three patients with extensive, infection-prone wounds requiring surgical reconstruction.

Case Descriptions

- 1** 21-year-old male with 70% TBSA burns developed Stage IV pressure ulcers, recurrent infections, and graft loss prior to transfer to our facility

Presentation at Transfer



- Matrix applied over new autografts + prior infected donor sites with NPWT



- Infection resolution and successful graft take within 9 weeks of presentation

- 2** 60-year-old paraplegic male with necrotizing infection of the upper extremity and thigh

Presentation



Intraoperative



- Serial debridement, electrospun fiber matrix, NPWT, autograft; matrix over grafts and under NPWT on injury and alone on donor site

3 Month Visit



- 90% epithelialization by day 4 and closure by day 10 w/o reinfection

- 3** 74-year-old male with 15% TBSA fourth-degree burns, osteomyelitis, and severely threatened limbs

Presentation



Prior to First App



- Staged debridement + dermal sub beneath matrix after failed allograft

1 Month Post-app



- < 5 days after second matrix app, granulation improved markedly; discharged in 1 month with full coverage of avascular structures

Conclusions

- Across diverse wound types, the bioresorbable antimicrobial matrix supported infection control, wound bed preparation, and autograft protection, resulting in durable closure and, in one case, limb salvage.
- Its compatibility with NPWT, dermal matrices, and autograft sprays demonstrates versatility and potential to enhance outcomes in patients with complex infected wounds.