Management of Fournier's Gangrene Perineal Wounds with Allogenic Pisces Dermis

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Introduction:

Fournier's gangrene causes extensive, heavily colonized perineal wounds, creating significant challenges for reconstruction. Traditional approaches often fail in this environment. We evaluated the use of decellularized and lyophilized fish dermis (DLFD)—a robust, antibacterial, and pro-regenerative biological scaffold—as a temporary coverage in preparation for definitive grafting.

Methods:

We included eight patients with significant comorbidities presenting with full-thickness, heavily colonized necrotic soft tissue defects in the perineal/perianal regions. After radical debridement, DLFD was applied in combination with negative pressure wound therapy (NPWT). Patients were subsequently managed with a split-thickness skin graft (STSG).

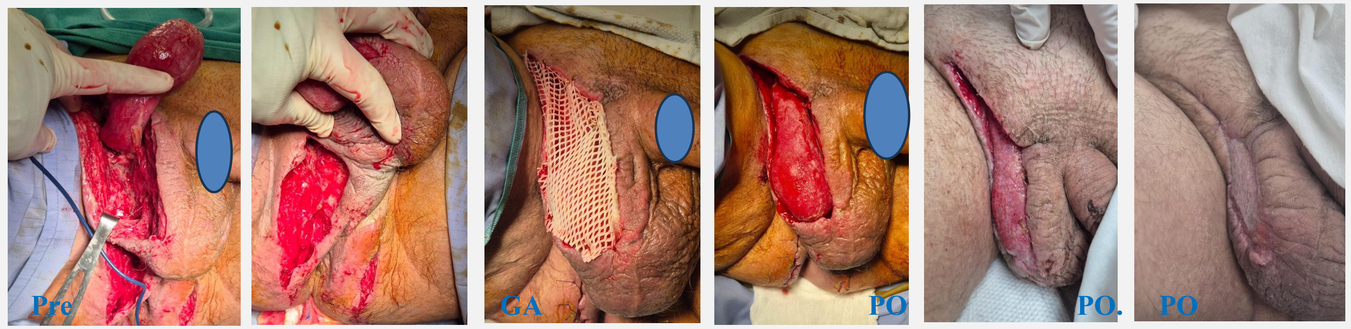
Results:

Despite high bacterial burden and complex anatomy, all patients showed complete Xenograft integration optimal granulation tissue achieved within 10 to 14 days. No graft loss was observed, and subsequent STSG resulted in >95% take and complete epithelization within 14-21 days.

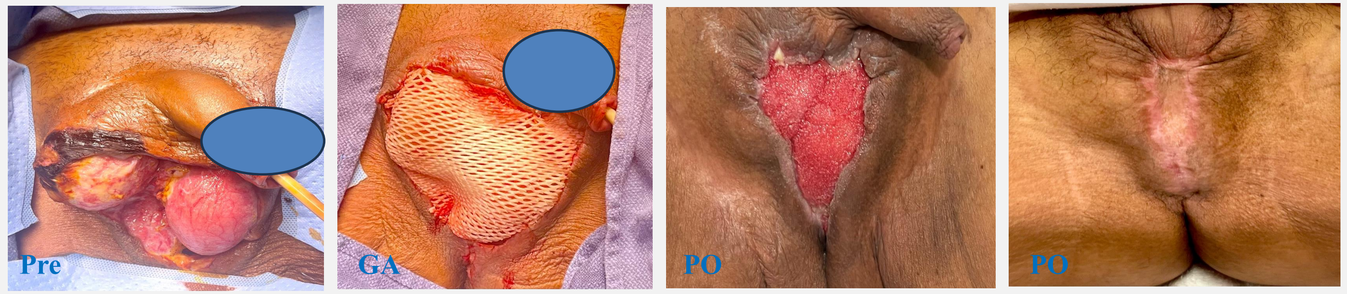
Discussion:

DLFD is an effective temporary scaffold for heavily colonized perineal wounds, providing a superior bacterial barrier and creating an optimal wound bed for grafting. While these results are promising, strict wound bed preparation remains essential.

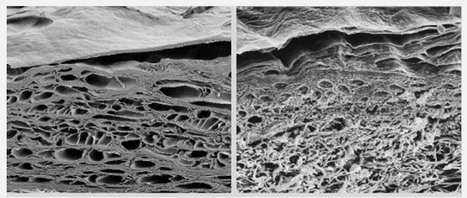
Fournier's Gangrene hx smoker, poorly controlled diabetes, obesity



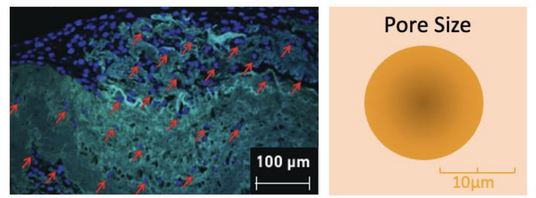
Fournier's gangrene hx smoker

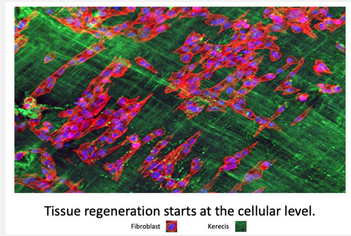


NSTI buttocks and perineum- hx DM, smoker, morbid obesity presents on septic shock



Human Dermis. Piscis Dermis





Legend-
Pre: Pre-Operative
GA: DLFD Graft application.
PO: Post-Operative DLFD

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