



Video Presentation 2

Reconstruction of Critical Wounds with Piscine Acellular Dermal Matrix: Indications and Outcomes

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Introduction: Wounds with exposed critical structures present a challenge, especially in patients with concomitant uncontrolled diabetes, poly-trauma or infection. Use of Kerecis acellular dermal matrix allowed us to successfully treat these wounds when more complex reconstructive techniques are contraindicated. In this large study, we report the successful use of this ADM for reconstruction of extremity, craniofacial, and trunk wounds across patients of all age groups.

Methods: From January 2021 to October 2024, at our Level 1 Trauma center, we undertook a retrospective review of 56 patients with extensive full-thickness soft tissue wounds treated with Kerecis and subsequent skin grafting. Clinical data was tabulated to evaluate mechanisms of injury, comorbidities, additional treatments, and outcomes.

Results: Etiology included burns, avulsion trauma, necrotizing infection, and oncologic resection. Of 45 adults, 15 had upper extremity wounds and 30 had lower extremity wounds. There were 11 pediatric patients. Upper extremity wounds treated with Kerecis were more likely to have critical structures exposed than lower extremity (80% vs 50%). The most common indications for Kerecis were poorly vascularized granulation tissue over joints, tendons, or bone, as well as tissue contour irregularities. Wounds with exposed tendons, bone, and joint, treated with Kerecis, resulted in successful healing without alternative treatments in 83% of adult extremity wounds and 100% of children's wounds. Kerecis was not effective over large areas of denuded bone or tendons without paratenon. There were no Kerecis related infections.

Conclusions: Kerecis allows for neovascularized wound coverage in patients with extensive comorbidities which preclude flap coverage. Kerecis is safe and well tolerated in critical wounds.



Day of Kerecis placement

Skin graft 12 days later

1 month post STSG