

JOINT EVENT

7<sup>th</sup> International Conference and Exhibition on **Surgery**  
&  
3<sup>rd</sup> International Conference on **Anesthesia**

June 21-23, 2018 Dublin, Ireland

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**The combined use of acellular urinary bladder matrix with negative pressure for treatment of complex lower extremity wound coverage**

**Statement of the Problem:** Patients with complex wounds can be a challenge to heal. The longer the wound is present the higher the complication rates which can lead to severe infections, loss of function, loss of a limb and even death. Traditional methods of wound healing have a place in initial wound care such as wet to dry saline gauze dressing changes. However, the implementation of this treatment requires an available and capable person to do the dressing change three times a day which is often not an option. The aging population also means higher rates of comorbid diseases which contribute to poor healing.

**Purpose:** The purpose of this study is to review the essentials in wound healing and describe the treatment modality of Acellular Urinary Bladder matrix (UBM) (MatriStem, ACell Inc. Columbia, MD, USA) with negative pressure therapy (KCI) for complex wounds.

**Methodology & Theoretical Orientation:** A retrospective review was performed of 4 patients with complex lower extremity wounds. All patients were treated with surgical debridement of the wound and placement of ACell (MiroMatrix powder and Multilayer Wound Matrix sheet) and negative pressure wound therapy. Two patients had traumatic wounds. One patient had diabetes and a previous contralateral below knee amputation. One patient had diabetes and pyoderma gangrenosum. The patients were evaluated weekly and the dressing changed weekly. Additional Acell was applied if there was a remaining deficit in the depth of the wound.

**Findings:** Closure was achieved in all four cases with the combined treatment of Acell and negative pressure therapy. Patients expressed pain relief and convenience with once a week dressing changes.

**Conclusion & Significance:** In the treatment of complex wounds, porcine urinary bladder matrix devices offer an option that has shown advantages to traditional modalities with successful closure and aesthetically acceptable results.

**Recent Publications**

1. Sanger C et al. (2011) giant facial lymphangioma. J Craniofac Surg. 2011 22(4):1271-1274.
2. Kirman C N et al. (2011) Difficulties of delayed treatment of craniosynostosis in a patient with Crouzon, increased intracranial pressure and papilledema. J Craniofac. Surg. 22(4):1409-1412.
3. Bharti G et al. (2013) Minimizing donor-site morbidity following bilateral pedicled TRAM breast reconstruction with the double mesh fold over technique. Ann Plast Surg. 70(5):484-487.
4. Couture D E et al. (2013) Efficacy of passive helmet therapy for deformational plagiocephaly: report of 1050 cases. Neurosurg Focus. 35(4):E4.
5. Sanger C, David L and Argenta L (2014) Latest trends in minimally invasive synostosis surgery: a review. Curr. Opin. Otolaryngol. Head Neck Surg. 22(4):316-321

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**Biography**

Claire Dillingham is a Board-Certified Plastic and Reconstructive Surgeon. She is currently, the Medical Director of Safety and Quality at her local hospital. She was the Medical Director of a wound care facility for five years. She teaches advanced techniques in wound care management to Surgery and Medicine residents. Her focus is on the patient as a whole for improving nutritional status, body dynamics, diabetic control, treatment of peripheral vascular disease, compression of lower extremities, and implementation of advanced wound care modalities.

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