Abstract Title: An Evaluation of Patients that Failed Outpatient Pain Management but Were Rescued by the Use of Synthetic Lactic Acid Polymer

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Objective: Upon completion of the lecture, attendees should be better prepared to:
• Discuss the components of a polylactic acid polymer
• Consider the concept that a decrease in perceived pain may not decrease the use of pain medication

Introduction: As the only verified burn center in our state, we implemented and participate in telemedicine for outpatient referrals from outlying and surrounding hospitals. Outside hospitals will submit photos and provide basic information about the burn injury. A staff physician then triages the pic and suggests inpatient vs outpatient management. In our quality review of this process, we identified 5 patients that on presentation to clinic were admitted for observation or inpatient status secondary to uncontrolled pain. These patients were admitted by various staff members but their courses post admission were followed. The charts were assessed for areas of complaint, narcotic needs, any previous dressings/wound care used and what treatments were implemented post intervention.

Methods: Patients were identified during a quality review for admissions on first presentation to clinic. These assessments are evaluated for assurance that things aren’t missed or overlooked in our telemedicine program. When looking at this data we noted that of the 5 patients had polylactic acid synthetic polymer skin substitute applied. Once identified the charts were retrospectively reviewed for treatment course post admission. Key items identified was percent and depth of burn, narcotic usage on arrival to clinic and post procedure narcotic usage, time to discharge post intervention, standard pictures were reviewed.

Results: Review of the charts yielded the following:
Patient 1 was a 16 year old female that sustained 7% TBSA 2nd degree burn with small area od deep 2nds near the ankle. She presented in a wheelchair taking oral narcotics at home q4h and undergoing silver sulfadiazine (SSD) twice daily. Taken to the OR 2 hrs post admission and placed in polylactic acid polymer. Her narcotic need decreased to 4 pills on POD#0 and was discharged home POD#1.

Patient 2 was a 70 year old male who had polylactic acid skin substitute applied to the left leg and silicone backed foam dressings applied to the right. The patient
represented 2 days later with uncontrolled pain in the right leg. He remained in the hospital for 3 additional days always with only a complaint on the right. This situation led to a great controlled evaluation in the difference of pain perception as his treatments were different from the beginning.

Patient 3 was admitted after sustaining 20% TBSA superficial and deep 2nd degree scald burns. Wounds initially dressed in antibiotic ointment and Vaseline gauze. He was taken to the OR and placed in polylactic acid to minimize wound care. But it was noted that he received and requested no narcotic medications in his 24 hours post-operative period and was slated for discharge on POD #2

Evaluation demonstrated that there was a significant difference in perceived pain but this did not translate to a significant decrease in narcotic requirement.

**Conclusion:** With such drastic changes in, physical activity and ability to discharge home, this warrants a continued look at the ability of the polylactic acid synthetic polymer skin substitute to minimize pain and why.

**Disclosure:**

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