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Theresa L. Chin, MD, MPH, Kimberly Burton, PA-C, Mini thomas, MSN, DNP, Nicole O. Bernal, MD, Bobby Nourani, DO, Molly Nunez, MSN, NP, Sheng Li, LAc, OMD, Rachel Rychlock, LAc, MSTCM, Mariko Horie, LAc, DAOM, Shaista Malik, MD, PhD, MPH, Victor C. Joe, MD

University of California Irvine, Tustin, California; UCI Health Regional Burn Center, Orange, California; UCI Health, Costa Mesa, California

Introduction: Acupuncture is a well known modality in traditional Chinese medicine to treat various ailments including pain. There is increasing evidence that acupuncture reduces postoperative pain, but it is poorly studied, especially in burn and wound patients. We report our initial experience with acupuncture treatment associated with burns and wounds on our burn service.

Methods: Our hospital now employs acupuncturists as part of implementation of integrative health modalities. Data on Burn service patients who underwent acupuncture were prospectively collected. Patients consented prior to treatment. Additional reasons for treatment other than pain were collected. Pain scores before and after the session were recorded. If patients were sleeping at the end of treatment and a pain score could not be obtained, the pain score was assigned zero. Side effects, including local bleeding, bruising, needling discomfort and short-term nerve irritation, were followed.

Results: From March to October 2019, nineteen patients on the Burn service were treated with acupuncture for a total of 178 sessions. Median age was 56 years (IQR:46–64.5). One pediatric patient was treated. Most (70%, n=14) were burn patients and 6 patients had other types of wounds. Median TBSA for burn patients was 8.5% (IQR:5.4–10.4). The number of treatments per patient ranged from 1–23 with a median of 5 (IQR:2.5–19). The median pain score prior to acupuncture treatment was 3 (IQR:0–5) and after treatment was 0 (IQR:0–2.25). Almost half (48%) of the treatments included other symptoms besides pain, most commonly for sleeping disorders (n=33) and anxiety (n=28). No side effects of acupuncture were reported. The most common auricular acupuncture points were shenmen and sympathetic, which targets relaxation and pain. Large Intestine 4, located on the hand, and Liver 3, located on the foot, were the most common body acupuncture points, which target relaxation and generalized pain.

Conclusions: Acupuncture appears to mitigate burn and wound pain and can be used to treat other acute ailments besides pain. There are few side effects of acupuncture on burn and wound patients. Based on our initial experience, a prospective observational study to identify the efficacy of acupuncture in burn patients for pain control and other symptoms is being developed.

Applicability of Research to Practice: In light of the opioid crisis, new applications of nonopioid modalities for pain management should be investigated. Acupuncture is low risk with potential benefit without opioids. Furthermore, other symptoms such as sleep disturbances and anxiety may be treated without pharmacologic medications.

500 Intracranial Injuries and the Effect of Fluid Resuscitation in Burn Patients

Alicia M. Williams, MD, Brian Stephens, MD, Julie A. Rizzo, MD, Anthony R. Frattalone, MD, Kevin K. Chung, MD, Craig Ainsworth, MD, Leopoldo C. Cancio, MD

US Army Institute of Surgical Research, San Antonio, Texas; Brooke Army Medical Center, Fort Sam Houston, Texas; Regions Hospital, St. Paul, Minnesota; F. Edward Hebert School of Medicine/Uniformed Services University, Bethesda, Maryland

Introduction: Few studies exist that describe the neurologic injuries seen in patients admitted to the burn ICU. Patients who have sustained a severe thermal injury undergo complex metabolic, hemodynamic, and inflammatory changes and require aggressive fluid resuscitation. The neurologic consequences of burn-associated resuscitation may have clinical implications. The purpose of this study was to evaluate the intracranial neurologic injuries and how they relate to volume of burn-related resuscitation fluids administered.

Methods: We performed a retrospective analysis of all patients admitted to the Burn ICU at a single facility between January 2003 and June 2017. Patients were included if they were admitted within 24 hours of their burn injury and obtained head computed tomography (CT) for any indication in the first 96 hours of hospitalization.

Results: Of a total 5176 patients admitted, 439 met the inclusion criteria. An acute intracranial process was identified in 41 cases. 27 patients received 0–150 cc/kg of IV fluids, while 11 received >200 cc/kg during the first 24 hours. The most common injuries in the former were hemorrhage (subarachnoid, intraparenchymal) and edema (7/27 for each), while ischemia/infarction (4/11) was the most frequent in those receiving >200 cc/kg. Follow up imaging was more likely to be worse in the >200 cc/kg group (5/11) than in the < 150 cc/kg group (2/27).

Conclusions: Of patients admitted to the Burn ICU within 24 hours of injury and who received a head CT within the first 96 hours, an acute intracranial abnormality was found in 8% of patients. The most common diagnosis was hemorrhage in those receiving < 150 cc/kg of IV resuscitation, while ischemic/infarction was more common in those receiving >200 cc/kg. Follow up imaging in those receiving more IV fluids was more likely to demonstrate worsening, which could suggest that increased resuscitation leads to worsening intracerebral outcomes.

Applicability of Research to Practice: Having a high index of suspicion for intracranial complications related to resuscitation improves the multi-disciplinary team's ability to prevent, identify early and treat appropriately in order to improve patient outcomes.