EXTRA-LARGE NEGATIVE PRESSURE WOUND THERAPY DRESSINGS FOR BURNS - INITIAL EXPERIENCE WITH TECHNIQUE, FLUID MANAGEMENT, AND OUTCOMES (P153)

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Introduction: The use of negative-pressure-wound-therapy (NPWT) is associated with improved outcomes in smaller burns. We report our experience using extra-large (XL) NPWT dressings to treat ≥15% TBSA burns and describe our technique and early outcomes. We also provide NPWT exudate volume for predictive fluid resuscitation in these critically ill patients.

Methods: We retrospectively reviewed patients treated with XL-NPWT from 2012-2014. Following excision/grafting, graft and donor sites were sealed with a layered NPWT dressing. We documented wound size, dressing size, NPWT outputs, graft take, wound infections, and length of stay (LOS). Mean NPWT exudate volume per %TBSA per day was calculated.

Results: Twelve burn patients (mean TBSA 30%, range 15-60%) were treated with XL-NPWT (dressing TBSA range 17-44%). Average graft take was 97%. No wound infections occurred. Two patients had burns ≥50% TBSA and their LOS was reduced compared to ABA averages. XL-NPWT outputs peaked at day 1 post grafting followed by a steady decline until dressings were removed. Average XL-NPWT dressing output during the first 5 days was 101±66 mL per % BSA covered per day (Fig.1). 2 patients developed acute kidney injury.

Conclusion: The use of XL- NPWT to treat extensive burns is feasible with attention to application technique. NPWT dressings appear to improve graft take, and to decrease risk of infection, LOS, and pain and anxiety associated with wound care. Measured fluid losses can improve patient care in future applications of NPWT to large burn wounds.

Figure 1