SCAR OUTCOME OF CHILDREN WITH PARTIAL THICKNESS BURNS: A 3 AND 6 MONTH FOLLOW-UP (131)

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Introduction: In children with partial thickness burns re-epithelialising in ≤2 weeks, a normal skin appearance is expected within 6 months, but there is a paucity of research to verify these assumptions. The aim of this study was to assess the long-term skin appearance of children with partial thickness burns and to determine if silver dressings used acutely could impact the outcome.

Method: Children aged 0 to 15 years with an acute partial thickness burn injury and a burn total body surface area (TBSA) of ≤10% were included. Participants were originally recruited for a randomised controlled trial investigating three dressings for partial thickness burns [1]. Children were assessed at 3 and 6 months post-wound re-epithelialization. A 3D photograph was taken of the burn site, the POSAS was completed and an ultrasound scan was taken of the burn site and an unaffected contralateral site to measure skin thickness. Multiple regression models were used to identify predictors of POSAS scores. In addition, POSAS scores and ultrasound measurements were analyzed over time. Correlation of variables was calculated using Pearson correlations or Spearman’s rho. All tests with a p value <0.05 were considered statistically significant.

Results: Forty-three children returned for 3 and 6 month follow-ups or returned a photo. Days to re-epithelialisation was a significant predictor of skin/scar quality at 3 and 6 months (p<0.01). Patient-rated colour and observer-rated vascularity and pigmentation POSAS scores were comparable at 3 months (colour vs. vascularity 0.88, p<0.001; colour vs. pigmentation 0.64, p<0.001), but patients scored higher than the observer at 6 months (colour vs. vascularity: 0.57, p<0.05; colour vs. pigmentation: 0.15, p = 0.60). Burn depth was significantly correlated with skin thickness (r=0.51, p<0.01). Hypopigmentation of the burn site was present in 25.8% of children who re-epithelialised in ≤2 weeks.

Conclusion: This study has provided information on long-term outcomes for children with partial thickness burns and highlighted a need for further education of this population.