

Neonatal Burns at the Women's and Children's Hospital (WCH), South Australia

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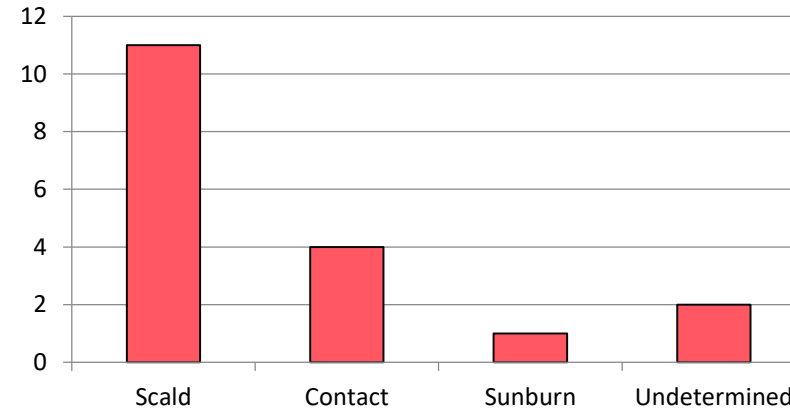
Introduction

Neonatal burns are rare and challenging. Iatrogenic injuries in neonates can have devastating results due to their immature physical and physiological development.

Methods

This is a single-site, retrospective study of inpatient and outpatient burn injuries managed in patients less than 29 days-old from 1995 to 2017 at WCH, SA. Burns unit burns database and from individual case notes.

Cause of burn in neonates



Results

There were 18 neonates in this study, majority 61% (n=11) were female. The age range from 1 to 28 days, mean age was 12 days. The mean total burn surface area (TBSA) was 0.5% (range, 0.1% - 7%). Aetiology of burn include scald from spilled hot milk or hot water, pre-Guthrie testing warming of heel in hot water, heat contact, sunburn, and two cases of undetermined non-accidental injury. Majority of patients were treated as Outpatients with Acticoat™ dressings secured with Hypafix[®]. No reported complication in relation to silver dressings were documented. Only 3 patient required inpatient management - monitoring of dehydration post sunburn (1), excision and grafting (2). There were no in-hospital mortality. The mean follow up was 304 days (range 6-3336).

Discussion

1. Scalds

Majority of scalds resulted from hot liquid (milk/water) spilling onto child in the process of preparing a feed. The state wide policy has been modified to use warm, NOT hot or boiling water to warm formula or expressed milk.

2. Guthrie test and prewarming

Several studies have shown no benefit of warming the heel before capillary blood sampling. The volume of blood, collection time, crying time, and repeat procedures have been shown to be no different between children who had their heel warmed and those who did not. Since these incidents, using hot water or cloths dipped in hot water to pre-warm the heel is no longer in practice.

3. Sunburn

National guidelines recommends using sunscreen on children older than 6 months. The better practice is to keep neonates and infants out of direct sunlight, and to wear sun-safe togs. The healing potential in this age group results in no immediate consequences, but the risk for cutaneous malignancies in the future remains a known threat.

Our study reflects a low incidence of neonatal burn injuries, and silver dressings are deemed safe to use in this population.

References

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2. Hassan Z. Scald injury from the Guthrie test: Should the heel be warmed?. Archives of Disease in Childhood – Fetal and Neonatal Edition 2005;90:F5333-F534