

Presenter: Penny Grant, MD

Pt: 3 month-old female

Why this case is of interest

Pattern of burn injury as it relates to mechanism and causal substance of injury.

Case summary

- 3 month female referred by PCP for 2nd opinion of burn.
- Mother reported pouring hot water on the front of baby to clean her after having a large BM. Mother reported baby was not wearing any clothes. Mother reports pouring water over the baby using a bucket and filling it with water from the sink. She reports that she tested the water and it was not hot, but that the baby began crying after she poured it on her.
- Mother reported to the police that she was cradling the baby in her arms, back towards her, facing the front of the sink, legs dangling. She did not place her in the sink. Mother told detective she was cradling baby in her left arm at 60° with baby's face towards the sink, feet dangling, when pouring the hot water
- Measured water temp: Tmax (both faucets): 106°
- Tmax (hot water faucet): 170°
- Brought to PCP 24 hrs after incident.

Key learning points

1. Importance of scene investigation and re-enactment of mechanism of injury
2. Pour burn pattern injuries
3. Role of skeletal survey

Summary of literature

1. DeGraw M., Hicks RA, Lindberg D, et.al. Incidence of fractures among children with burns with concern regarding abuse. *Pediatrics*. 2010; 125: e295-e299.
2. Maguire S, Moynihan S, Mann M, Potokar T, Kemp AM. A systematic review of the features that indicate intentional scalds in children. *Burns*. 2008; 34: 1072-1081.
3. Hicks RA, Stolfi A. Skeletal surveys in children with burns caused by child abuse. *Pediatric Emergency Care*. May 2007; 23(5): 308-313.