PEDIATRIC BURN STORY - RETROSPECTIVE 5 YEARS STUDY OF THE CHARACTERISTICS AND EPIDEMIOLOGY OF PEDIATRIC BURN INJURIES IN THE NATIONAL PEDIATRIC BURN REFERRAL CENTER (P089)

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Aims of the Study: At the beginning of the new century, significant advances in burn surgery are noticed. Although burns are a form of trauma that optimally requires multi-disciplinary care, they have often been managed and studied quite separately from other types of injury. Our Pediatric Burn Center is the only center in the country that provides comprehensive treatment for burned children as well as with classic conservative and surgical methods of treatment as with the new modern technologies.

The aim of the study was to acquaint the medical public with the activity of the pediatric burn referral centre, to identify the risk factors that predispose a child to a burn injury and to provide data for prevention strategies. Through treatment we are presenting the characteristics and epidemiology of pediatric burns and are identifying risk factors in the children's environment which are predisposing it to a burn injury.

Method: A retrospective study of 212 children treated in our institution as inpatients from January 2010 to January 2015 was done. We collected certain epidemiological data by an interview with parents of burned children. The main characteristics of the patients observed were age, sex, TBSA affected, mechanism of injury, cause of burns, region of involvement, season of injury, rural or urban setting, household characteristics and family characteristics.

We made division of cases according to the mechanism of burn injury and injury severity such as massive life threatening thermal injuries (>40% TBSA), scalds, burns, flame injuries and contact burns.

Results: Male patients had twice more burn injuries than females (136 vs.76). Our patients lived mostly in urban than in rural settings (67% vs. 33%).

For massive thermal injuries mean total body surface area (TBSA) affected was 64%, the most severe patient 90%. Mean age was 8 years (3-15), mean duration of hospitalisation 174,5 days (22-434), mean duration of ICU hospitalisation (8 patients) 33,5 days (12-102) and mortality was 0%.

For scalds mean TBSA affected was 9%, the most severe patient 35% TBSA. Mean age was 4,4 years (6 m-15y), mean duration of hospitalisation 16 days (1-88), mean duration of ICU hospitalisation (16 patients) 5,7 days (2-13).

For flame injuries mean TBSA affected was 9%, the most severe patient 25% TBSA, mean age was 10, 8 years (20 days-18y), mean duration of hospitalisation 23 days (1-157) , mean duration of ICU hospitalisation (4 patients) 11,6 days (2-21).

For contact burns mean TBSA affected was 2%, the most severe patient 10% TBSA, mean age was 1,5 year (6 m-4y), mean duration of hospitalisation 10,8 days (1-46) and mean duration of ICU hospitalisation (1 patient) 4 days.
Conclusion: Burns remain common in children, particularly among lower socioeconomic groups. Burn injury in children represents a unique form of trauma that requires an experienced, multidisciplinary team for optimal outcomes. Predicting burn wound outcome continues to be problematic. Massive thermal injuries in our country are very frequently associated with boiling water and require usually long hospital stay. Scalds are the most common form of injury but luckily with the lowest percentage of full thickness burn injuries. Flame burns are commonest among school children (boys) and are associated with significant morbidity (scarring). Contact burns are injuries of toddlers but are also associated with significant scarring that happens mostly in autumn and winter.