BURN INJURIES IN CHILDREN < 1 YEAR AT THE BURNS UNIT, QUEEN ELIZABETH CENTRAL HOSPITAL (QECH), BLANTYRE, MALAWI - 20 YEAR EXPERIENCE (065)

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Between 1994 and 2013, 5584 patients have been treated at the Burns Unit at QECH; the majority were children and adolescents ≤ 15 years (73%). A total of 448 children were < 1 year of age (8% of total; 51% males). TBSA was < 5% in 20% of patients, 5-10% in 38%, 11-20% in 26%, 21-30% in 11%, 31-40% in 3% and >40% in 2%; this is similar to the TBSA distribution among all age groups.

The majority of burns (57%) were caused by fire, either by falling into fire directly or through clothing or bedding catching fire, usually from a paraffin lamp or a cooking fire. During the last 5 years mosquito nets were increasingly incriminated.

Mortality in this age group was high at 33% compared to 23% for other age groups (p<0.01). While in children < 1 year with TBSA <5% there were no deaths, in TBSA > 11% mortality was significantly higher compared to other age groups (72% vs. 45%, respectively, p<0.01), while in TBSA > 21% mortality was 98% (69% in other age groups, p<0.01). Early mortality (first 3 days) was mostly caused by hypovolemic shock or dehydration with fluid imbalance, while late mortality (> 1 week) was commonly caused by sepsis.

The high proportion of children < 1 year among burn patients is unusual in western populations. In Africa, cultural practices play a role where the child is kept close to the mother all the time rather than sleeping in a cot; therefore they may be exposed to risk for burns such as rolling or crawling into a cooking fire or a fire caused by a paraffin lamp when they are left by the mother close to the lamp. The skin texture of the very young child, the immature immune system, the complexity of fluid and electrolyte balance in the young child and lack of specialist paediatric intensive care may all contribute to the poor outcome. Public awareness leading to prevention is urgently needed.