ASSAULT BY BURNING USING CORROSIVE SUBSTANCES - CALLS FOR IMPROVED LEGISLATION AND PREVENTIVE MEASURES (076)

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Introduction: Acid attacks in third world countries have been well described in the literature. In the United Kingdom (UK), burn injuries from corrosive substances are often the result of industrial related work accidents. In recent years, the incidence of acid assaults has gained awareness through several high profile cases. Assaults using corrosive substances are malicious acts of violence as victims are often left with significant disfigurement. This group of patients requires good psychosocial support to successfully reintegrate back into society. Victims of such assaults are often reluctant to pursue full criminal charges against the perpetrator for a variety of reasons. The aim of this study was to review the circumstances in which these assaults occur, patient outcomes, and current criminal proceedings. We also examined potential preventative strategies unique to this injury type.

Methodology: A 15 year retrospective analysis (2000-2014) of all assault related burn injuries from corrosive substances which presented to a regional burn unit was conducted using case notes review. Data was collected on patient demographics, burn demographics, management, patient outcomes and number of successful criminal charges.

Results: 21 patients were identified. Male patients were almost three times more likely to be victims compared to females (ratio=15:6). Age ranged from 16 years to 56 years, with a mean of 29 years. These assaults were noted to be 3 times more likely to occur in the age group of 25 years and below, compared to those above 25 years of age. Burn depth ranged from superficial erythema to full-thickness burns. Median TBSA% was 2, with a range of 0 to 16. Head and neck region was most common location of injury, followed by upper limb, trunk and lower limbs. 5/21 cases required surgical management of the acute burn wound, with remaining cases being managed conservatively. 4 cases required late reconstructive procedures after initial injury. 9 cases had involvement of the eye. Only 1 case suffered partial sight loss. Acid was used more frequently than alkali. 4/21 cases had a history of previous assault related admission. 16/21 (76%) attacks occurred on the street. In a third of the cases, perpetrators were known to the victims. Long term psychosocial effects are often not adequately followed up. The number of cases proceeding to criminal charges often diminishes for various reasons (lack of legal support, fear of safety).

Conclusion: The management of assault related chemical burns requires a holistic approach. In addition to the surgical considerations, there are complex psychosocial and medico legal aspects in patient care which requires undivided attention. Clinicians should be educated on these aspects of patient care to enable provision of best care possible. Prevention is key in burn injury. Enforcing legislation restricting access to corrosive substances and increasing severity of punishment may help reduce the incidence of these assaults. Better structured long term psychological support is also needed to help these victims reintegrate into society.