### Burn Injury: Diagnosis and Care

Burn injury is an undermined trauma capable of affecting anyone irrespective of any geographic and socioeconomic variable. Jeschke et al. (Ref-A1B2C3) explained that burn injuries could be a result of friction, heat, electric, cold, chemical, or even radiation, however, many of burn injuries are often results of heat emitted from hot liquids or solid and fire. While burn injuries involve the destruction of tissues owing to the transfer of energy, each cause could be associated with varying physiological and pathophysiological responses. However, the authors further explained that the occurrence of burn injuries is more frequent among some vulnerable populations such as those living in low-income countries with limited access to preventive resources and those with epilepsy. According to Jeschke et al. (Ref-D4E5F6), burns can be classified into four based on their degree of severity: First degree burns affect only the topmost layer of the skin characterized by skin becoming red with some level of pain; second-degree burn are superficial or deep partial-thickness characterized with pain and scar and require dressing and wound care but not surgery; third-degree burn is a full-thickness which extends all through to the full dermis and usually not painful due to damages to the nerve endings, however, it requires surgical management and treatment against infections; fourth-degree burn have injuries to deeper tissues like muscle or bone, which often results in the loss of the burned part. While burn injuries often affect the skin, it could also cause injuries and alterations in other organs. For instance, inhalation injury which affects the respiratory tract of the injured.

Accurate diagnosis of the severity of a burn injury is important as it informs treatment decisions. Jeschke et al. (Ref-A1B2C3) identified two levels of diagnosing burn injuries namely, the primary and secondary survey. In the primary survey, it is often conducted at the scene of accident which consist of immediate standardized assessment, in this order of: the airway, breathing, ventilation, circulation and cardiac status, disability, neurological deficit, gross deformity and degree of exposure (Ref-D4E5F6). To prevent hypothermia, especially in children and the elderly, it is expected that the primary survey is conducted while maintaining a warm environment. In the secondary survey, it is either conducted in the emergency department or the burn center and it consists of laboratory analyses and imaging, tetanus prophylaxis, blood count, arterial blood gas measurement, electrolyte assessment, and coagulation profile. The secondary survey is crucial as it ensures a definitive evaluation of the burn severity including depth and size based on total body surface affected. In the care and treatment of burn injuries, Jeschke et al. (Ref-G7H8I9) recommend that first aid treatment should provided and usually sufficient in treating minor burn injuries. Although more severe burn injuries would benefit from the procedures of first aid treatment, they just be provided with another four components of care once admitted: resuscitation; burn-wound coverage; critical and supportive care; and rehabilitation.

Burns is one of the most underrated injuries which often result in long-term disability. In my experience, even after burn injuries in patients undergo procedural treatment they are often still left with a scar in their mental health from stigma and the fear of becoming irrelevant to unwanted in the society alongside the pain they undergo through every phase of the injury – from acquiring to the treatment procedure. The severity of this injury as well as how much it is undermined makes it important to me and this has become a driving force to seek out ways or programs geared towards preventing the occurrence of burn accident and effective care to provide burn patients with order to soothe both their physical and emotional pain as well as meet their other care needs.