

Characteristics and Challenges of Post-Burn Contractures in Adults and Children: A Descriptive Study

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Abstract : Deep dermal or full thickness burns are inevitably lead to post-burn contractures. These contractures remain to be one of the most concerning late complications of burn injuries. Surgical management includes releasing the contracture followed by resurfacing the defect accompanied by post-operative rehabilitation. Optimal treatment of post-burn contractures depends on the characteristics of the contractures. This study is aimed to describe clinical characteristics, problems, and management of post-burn contractures in adults and children. A retrospective analysis was conducted from medical records of patients suffered from contractures after burn injuries admitted to Hasan Sadikin general hospital between January 2016 and January 2018. A total of 50 patients with post burn contractures were included in the study. There were 17 adults and 33 children. Most patients were male, whose age range within 15-59 years old and 5-9 years old. Educational background was mostly senior high school among adults, while there was only one third of children who have entered school. Etiology of burns was predominantly flame in adults (82.3%); whereas flame and scald were the leading cause of burn injury in children (11%). Based on anatomical regions, hands were the most common affected both in adults (35.2%) and children (48.5%). Contractures were identified in 6-12 months since the initial burns. Most post-burn hand contractures were resurfaced with full-thickness skin graft (FTSG) both in adults and children. There were 11 patients who presented with recurrent contracture after previous history of contracture release. Post-operative rehabilitation was conducted for all patients; however, it is important to highlight that it is still challenging to control splinting and exercise when patients are discharged and especially the compliance in children. In order to improve quality of life in patients with history of deep burn injuries, prevention of contractures should begin right after acute care has been established. Education for the importance of splinting and exercise should be administered as comprehensible as possible for adult patients and parents of pediatric patients.

Keywords : burn, contracture, education, exercise, splinting

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