FACTORS AFFECTING THE DEPTH OF BURNS OCCURRING IN MEDICAL INSTITUTIONS (022)

*Choi Y.1, Rhee N. G.2

1 Bestian hospital, Emergency medicine, Seoul, South Korea
2 Bestian hospital, Emergency medicine, Bucheon, South Korea

Introduction: Most cases of burns occurring in medical institutions are associated with activities involving heat. It is very difficult to detect these burns. To date, there are few reports on burns occurring in medical institutions. The purpose of this paper was to analyze the etiology of burns occurring in medical institutions and to elucidate the factors affecting burn depth.

Methods: We conducted a retrospective analysis of the medical records of patients who visited our center from April 2008 to February 2013. This study enrolled all patients with burn injuries occurring in the medical institution during or related to treatment. We excluded burn patients whose burn injuries were not related to treatment (for example, we excluded patients with scalding burns that occurred in the hospital cafeteria and pediatric patients with hot water burns from the water purifier). However, patients with burns that occurred in the recovery room after general anesthesia were included.

Results: A total of 115 patients were enrolled in this study. The average patient age was 41.5 years, with more women than men (M:F = 31:84). There were 29 cases (25.3%) of superficial burns (first-degree and superficial second-degree) and 86 cases (74.7%) of deep burns (deep second-degree and third-degree). Hot packs were the most common cause of burns (27 cases, 23.5%), followed by laser therapy, heating pads, and grounding pads, accounting for 15 cases each. There were 89 cases (77.4%) of contact burns and 26 cases (22.6%) of non-contact burns. The most common site of burns was the lower extremities (41 cases, 35.7%)

The burn site and contact burns were both factors affecting burn depth. The rate of deep burns was higher in patients with contact burns than in those with non-contact burns (odds ratio 4.26) and was associated with lower body burns (odds ratio 2.85).

Conclusion: In burns occurring in medical institutions, there is a high probability of a deep burn if it is a contact burn or occurs in the lower body. Therefore, safety guidelines are needed for the use of hot packs, heating pads, and grounding pads to prevent such incidents.