Experience of a Tertiary-Level Urology Center in the Clinical Urological Events of Rare and Very Rare Incidence. I. Surgical Never Events: 3. Urological Electrosurgical Never Events

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Abstract:

Introduction: Surgical fires are unique topics that belong to surgical never events and deserve urological attention. Materials and Methods: A retrospective search of our hospital records was done for the states of electrosurgical never events in the period from July 2001 to June 2016. The included events were classified according to the site of occurrence in relation to the patient’s body and possibilities of human involvement. The events were studied for the type, extent, damages, personnel involvements, complications, and management. Results: Of more than 82,000 urological interventions, 18 cases (0.022%) of electrosurgical never events were detected. Four subcategories were differentiated: electrosurgical theater fires (33.3%), electrosurgical contact skin burns (38.9%), electrosurgical internal injuries (16.7%), and electrocutions (11.1%). Electrosurgical theater fires included 3 ignition fires with fire skin burns and 3 device explosions. Fires only occurred with the use of alcoholic skin disinfectants. Contact skin burns resulted from inadvertent direct electrosurgical contacts, with 2 burns on the back, 3 burns on the lower limbs, 1 burn at the penile shaft, and 1 burn at the suprapubic region. Only 1 case of contact skin burn required plastic surgery. Electrosurgical internal in-juries involved the intestine, spleen, and urethra and were followed by major complications. Electrocutions involved a doctor and a patient with multiple bone fractures in the former. Conclusion: Urological electrosurgical never events are very rare incidents and were differentiated into 4 clinical subcategories. Human involvements varied from absence to major devastating complications. Reduction of these events depends on the adjusted use of electricity-based armamentarium.

Keywords:

Electrosurgical fires; Electrosurgical injuries; Operative burns; Surgical fires; Surgical never events

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