

The current practice and outcomes of managing scorpion stings in Riyadh

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Background: Scorpion are abundantly found in desert environment. The aim of this study was to review the demographics of scorpion stings in the Riyadh region, the current practice of management, the utility of the laboratories investigations, and their effect on hospitalizations, length of stay in the Emergency Department (ED), and return visits.

Methods: The study was a retrospective observational descriptive chart review. Data were collected from the electronic health system (BESTCare2.0A.Ink) from January 2016 to April 2019. It was a consecutive sample. We included all adult patients (> 14 years old) who presented to King Abdul-Aziz Medical City (KAMC) complaining of clinical manifestations of scorpion envenomation. Data were analyzed using kobotoolbox (kobotoolbox.org), and Excel. The t-test was used to compare ED length of stay between the different groups of patients.

Results: We included 286 patients; the mean age was 34.5 (± 13.8). Male patients represented (85.66%) of the sample. All the patients presented with either grade 1 (83.6%) or grade 2 (16.4%) envenomation severity, and all of them had different pain control interventions. Anti-venom was given to only one patient unnecessarily. Overall, the mean ED length of stay by hours was 2.7 (± 1.6). Only 33.22% of the patients had obtained laboratory investigations that were normal or clinically insignificant. There was a significant increase in the ED length of stay between the patients who did and those who did not obtain laboratories investigations (3.9 ± 1.5 vs. 2.1 ± 1.3 hours; $p = 0.0001$). There was no hospital admissions or any clinical complications; all patients have been discharged safely from the ED. There was only one return visit to ED for pain control.

Conclusion: The study re-demonstrates the predominance of weak scorpion envenomation's in the Riyadh region. We observed that patients with grades 1 and 2 envenomation could be managed safely without ordering laboratories investigation or using anti-venom therapy.