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Abstract

The effect of plasmapheresis on treating disseminated intravascular coagulation (DIC) caused by Hemiscorpius lepturus (Gadim) sting

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Abstract:

The highest mortality from scorpion stings in Iran is due to the stings of a particular type of scorpion known as Hemiscorpius lepturus (H. lepturus, Gadim in local language). The present study aimed at investigating the use of plasmapheresis to treat severe cases of H. lepturus stings. This pilot study was a randomized clinical trial conducted in Iran. Twenty-nine patients who had been stung by H. lepturus and admitted to ICU because of disseminated intravascular coagulation (DIC) were randomly assigned into control and plasmapheresis groups, and the patient outcomes were compared between the two groups. Eighteen patients were female. There was no significant difference between the two groups in terms of the demographic and sting features. In the plasmapheresis group, hemoglobin level was significantly lower, while the PT and INR were measurably higher. In total, the plasmapheresis group experienced 29 sessions of treatment. Overall, 19 patients expired, whereas 10 patients experienced recovery with or without complications. The rate of recovery was significantly higher in the plasmapheresis group compared with controls, with eight patients in the plasmapheresis group surviving compared with two in the control group. The duration of hospitalization was higher in the plasmaphersis group. A comparison of the dead and recovered patients' features indicated that the dead patients arrived in the hospital significantly later than the recovered ones, and they also had lower platelet counts. The findings of this small-scale pilot study show that using plasmapheresis in treating DIC in patients stung by H. lepturus can prevent death and encourage recovery.

Biography:

Babak Mostafazadeh is the director and senior consultant in forensic medicine and medical toxicology and also serves as professor and Chair in the Dept. of Forensic Medicine and Toxicology at Shahid Beheshti University of Medical Sciences, Tehran, Iran and board member of forensic medicine in Iran. He is the fellow of American College of Medical Toxicology and an editor in Chief of International Journal of Medical Toxicology and Forensic Medicine

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