An In Vitro Method for Assessing the Efficacy of Antivenom against *Hemiscorpius lepturus* scorpion

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*Hemiscorpius lepturus* (*H lepturus*) is a dangerous scorpion found in Iran, Iraq, Yemen and other parts of Africa (1). In the limited number of clinical and experimental studies reported that haemolysis is one of the most common symptoms that follow envenomation by this scorpion.

Using red blood cell fragility test, the anti-haemolytic effectiveness of antivenom serum against *H lepturus* venom was investigated. Degree of haemolysis produced was measured using ELIZA reading method. Addition of venom (2, 10, 20 and 40 ug/ml) to 0.5 ml of 5 % washed red blood cell suspension produced concentration-dependent haemolysis. Premixing of various volumes of antivenom (40, 100 and 200 ul/ml) with standard concentration of venom (20ug/ml) produced volume of antivenin-dependent protection against haemolysis. The results suggest that although the antivenom against *H. lepturus* is useful in inhibiting the haemolysis produced by the venom, the duration of protection is relatively short and appropriate measures need to be taken which may include re-administer the antivenom at intervals less than 8 hours. This suggestion deserves further clinical assessments.

**Keywords**: *Hemiscorpius lepturus*; Fragility test, Haemolysis, Antivenom.