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LETTER

Clinical profile of viper envenomations in Kerala, India: some unanswered questions

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Dear editor

We congratulate Kumar et al for their relevant study "Clinical and epidemiologic profile and predictors of outcome of poisonous snake bites – an analysis of 1,500 cases from a tertiary care center in Malabar, North Kerala, India" published in June 2018 in the *International Journal of General Medicine*.[1] The study is noteworthy in being one of the largest series addressing snake bites from the subcontinent. The study has succeeded in highlighting several important findings related to snake envenomation, which is a serious and neglected problem in India and other tropical countries.

An important finding that has surfaced from this study is the emergence of hump-nosed pit viper (*Hypnale hypnae*) - accounting for nearly 25% of envenomations. This is a cause for serious concern as the widely used Indian polyvalent antivenom does not neutralize *Hypnale* venom.[2] Thus, there is an urgent need to reassess and address the adequacy of the Indian polyvalent antivenom in light of these findings.

Other interesting findings reported are pituitary apoplexy and acute angle closure glaucoma, which have been encountered in Russell's viper envenomation patients from Southern India.[3,4] However, it is surprising that none of the patients with Russell's viper envenomation exhibited neurotoxic symptoms. This finding is usually associated with venom induced capillary leak syndrome. Neurologic manifestations have also been reported to occur in over 50% of Russell's viper envenomation patients from Srilanka.[5] It is unclear whether this difference is as a result of regional intraspecific variations in the Russell's viper venom or if the authors have not reported the number of patients who had both hemotoxic and neurotoxic manifestations.

From our clinical experience, we agree that patients with features of increased capillary permeability often have poor outcomes. In this regard, it would also be useful to know how many patients with features of increased capillary permeability developed early refractory hypotension and how many succumbed to other causes in the late phase.

We note that the mean antivenom use in viper envenomation is 18.5 vials with a maximum of 20 vials. This suggests that most patients required higher doses of antivenom. It would be of use to know the transfusion requirements of patients, especially those with hump-nosed pit viper envenomation.

We suggest that the authors consider adjusting the risk factors for mortality by using a multivariable logistic regression model that will help to identify independent predictors.

This will prove useful for clinicians involved in the management of snake bite victims.

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Disclosure

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