MO-20

The clinical significance of venom concentration in patients of Taiwan habu and bamboo viper snakebite

Chih-Chuan Lin
Department of Emergency Medicine, Chang-Gung Memorial Hospital, Linkou branch, and Chung-Gung University College of Medicine.

Objectives: Taiwan habu and bamboo viper snakebites are two of the most frequent venomous snakebites in Taiwan. Using ELISA method to detect serum venom concentrations of Taiwan habu or bamboo viper's snakebites patients has never been employed. Moreover, the clinical significance of serum venom concentration of Taiwan habu is still awaited for investigation.

Methods: This is a prospective observational study. In this study, we aimed to exam the relationship between serum/ wound venom concentration and clinical symptoms of snakebite patients. The serial changes of serum/wound venom concentration were observed in this study, too.

Results: Twenty-four samples of 18 recognized Taiwan habu or bamboo viper snakebite patients were analyzed by the developed ELISA technique in this study. The serum concentrations of the venom of Taiwan habu bitten patients were well correlated with the clinical severity. Serum venom declined soon after antivenin treatment. However, limb swelling might progress even serum venom concentration undetectable in moderate to severe envenomed Taiwan habu bitten patients. Thus, the venom concentration - symptom time gap was observed in Taiwan habu bitten patients.

Conclusions: In conclusion, these results indicate that venom detection in Taiwan habu snakebite victims is valuable in severity assessment of Taiwan habu snakebite. The serum venom concentration could also be used to guide the use of antivenin. The venom concentration - symptom time gap observed in this study revealed the nature of recovery of snakebites patients and could be used in clinical setting for antivenin usage.