

# Biting back: Snake venom contains toxic clotting factors

February 27 2013

---

The powerful venom of the saw-scaled viper *Echis carinatus* contains both anticoagulants and coagulants finds a study published in the launch edition of BioMed Central's open access journal *Journal of Venomous Animals and Toxins including Tropical Diseases* (JVATiTD). These may be a source of potent drugs to treat human disease.

The saw-scaled viper family *Echis*, responsible for most snake attacks on humans, are recognizable by the 'sizzling' noise they make, produced by rubbing together special serrated scales, when threatened. *Echis* venom causes coagulopathy, which can result in symptoms ranging from lack of blood clotting, hemorrhage, [renal failure](#) and stroke.

Researchers from the Razi Vaccine and Serum Research Institute, Iran led by Hossein Zolfagharian noted that treating plasma with venom from *Echis carinatus* actually causes it to coagulate. Splitting the venom by ion exchange chromatography showed that then venom contained both coagulants and anticoagulants. The clotting factors alone were toxic to mice.

The diametric effects of [snake venom](#) on blood are of interest because of medical applications, and although snakes can be considered as dangerous to humans – they may yet save lives.

In the auspicious Year of the Snake, BioMed Central, the open access publisher, is pleased to announce that the *Journal of Venomous Animals and Toxins including [Tropical Diseases](#)* (JVATiTD), the official

academic journal of the The Center for the Study of Venoms and Venomous Animals (CEVAP) of São Paulo State University (UNESP), based in Brazil, has moved to BioMed Central's open access publishing platform. Also this journal marks growth of [BioMed Central](#)'s portfolio of open access journals to 250.

Along with research into snakes *JVATiTD* publishes studies into all aspects of toxins, [venomous animals](#), and their derivative products, as well as tropical diseases especially infectious diseases, parasites and immunology.

**More information:** In vivo evaluation of homeostatic effects of Echis carinatus snake venom in Iran Hossein Salmanizadeh, Mahdi Babaie and Hossein Zolfagharian, *Journal of Venomous Animals and Toxins including Tropical Diseases* 2013, 19:3 (in press)

Provided by BioMed Central

Citation: Biting back: Snake venom contains toxic clotting factors (2013, February 27) retrieved 10 April 2024 from <https://phys.org/news/2013-02-snake-venom-toxic-clotting-factors.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.
---