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### Cytotoxic effects of *Androctonus australis hector* venom on the isolated liver

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**Background:** *Androctonus australis hector* (*Aah*) venom is well known by its high toxicity and when injected to animals, is able to induce several symptoms starting by affecting cardiovascular dysfunctions, respiratory distress and tissue alterations such as hepatic damages and acute inflammatory. These symptoms were related to the massive release of neurotransmitters after neurotoxins binding on the ionic channels of peripheral nervous system.

**Methods:** In this study, we focus on the liver as probable direct target for *Aah* venom. Venom was administrated into isolated liver. Tissue explant culture was used to quantify MPO and complement activities, the evaluation of oxidative status and histological analysis were also carried.

**Results:** Results showed that the *Aah* venom induces several alterations and injuries. An unbalance of oxidative status is expressed by the reduction of NO level and an increase of both MDA and GSH levels and the catalase activity. Inflammatory cell hyperplasia was observed on the histological micrographies and associated with an increase of MPO and complement system activities. Histological analysis also revealed apparition of necrosis areas.

**Conclusion:** These results indicate that *Aah* venom has cytotoxic effect on the isolated liver which is not related to neurotransmitters or other systemic mediators released during scorpion envenoming. It seems that *Aah* venom contains some bioactive components other than neurotoxins which could have direct target in this tissue.

#### Biography

Nadjia Bekkari has completed her PhD from USTHB University. She is member of research staff which work on venoms (snake and scorpion) under the direction of Pr Laraba-Djebari Fatima. She has published 2 papers in reputed journals.

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