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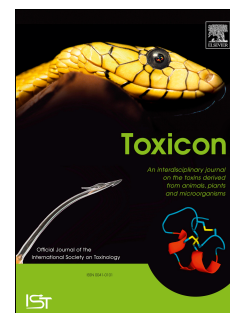
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A functional and thromboelastometric-based micromethod for assessing crotoxin anticoagulant activity and antiserum relative potency against *Crotalus durissus terrificus* venom

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ABSTRACT

The assessment of the capacity of antivenoms to neutralize the lethal activity of snake venoms still relies on traditional rodent *in vivo* lethality assay. ED₅₀ and LD₅₀ assays require large quantities of venoms and antivenoms, and besides leading to animal suffering. Therefore, *in vitro* tests should be introduced for assessing antivenom neutralizing capacity in intermediary steps of antivenom production. This task is facilitated when one key lethal toxin is identified. A good example is crotoxin, a β -neurotoxin phospholipase A₂-like toxin that presents anticoagulant activity *in vitro* and is responsible for the lethality of venoms of *Crotalus durissus* snakes. By using rotational thromboelastometry, we reported recently one sensitive coagulation assay for assessing relative potency of the anti-bothropic serum in neutralizing procoagulant activity of *Bothrops jararaca* venom upon recalcified factor-XII-deficient chicken plasma samples (CPS). In this study, we established conditions for determining relative potency of four batches of the anti-crotalic serum (ACS) (antagonist) in inactivating crotoxin anticoagulant activity in CPS (target) simultaneously treated with one classical activator of coagulation (agonists). The correlation coefficient (r) between values related the ACS potency in inactivating both *in vitro* crotoxin anticoagulant activity and

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