

Angiotensins Processing Activities in the Venom and Epidermic Mucus of *Scorpaena plumieri*

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INTRODUCTION: The venom of marine animals is a rich source of compounds with remarkable specificity and functional diversity. *Scorpaena plumieri* is the most venomous fish in the Brazilian fauna, responsible for relatively frequent accidents involving anglers and bathers. In humans, its venom causes edema, erythema and ecchymoses, anxiety, nausea, vomiting, and syncope. The venom has components characterized with emphasis to Sp-CTx, a phospholipase A2 able to generate an initial endothelium-dependent relaxation response, followed by a contraction response. **OBJECTIVES:** This study sought to investigate the proteolytic activities regarding vaso peptides Angiotensin I and Angiotensin II. **MATERIAL AND METHODS:** Wild specimens were collected from the shallow Waters of the coast of Coruripe, in Alagoas. The epidermal mucus and venom were collected and their angiotensin converting activity were tested with angiotensin I and angiotensin II. The hydrolysis products were detected through HPLC. Activity inhibition enzymatic been tested front the Captopril and EDTA. **DISCUSSION AND RESULTS:** Both, the venom and the epidermal mucus, presented angiotensin conversion activity of Ang I to Ang II, as well as capacity to form Ang 1-7 via Ang I. Captopril (10 μ M) and EDTA (1 mM) were able to inhibit the formation of Ang II from Ang I but not of Ang 1-7 from Ang I. Only the venom was able to generate Ang 1-7 from Ang II, which was inhibited by EDTA, similarly to the converting enzyme of angiotensin 2 (ECA 2). This fact indicate the existence of a pathway that converts Ang I into Ang 1-7 directly, and another that converts Ang II into Ang 1-7. **CONCLUSIONS:** A activity similar enzyme to ECA 2 is present in the venom of *S. plumieri*. EDTA inhibited this carboxypeptidase activity, but not captopril Further investigations are required for a thorough characterization of these activities and the character of the enzymes involved.

Keyword : Angiotensins, *Scorpaena plumieri*, venom.

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