DAMAGING EFFECTS INDUCED BY BthMP: A METALLOPROTEINASE PURIFIED FROM *Bothrops moojeni* SNAKE VENOM

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Envenoming by *Bothrops* species is characterized by prominent local tissue damage, including edema, pain, hemorrhage and necrosis, and by systemic disturbances such as coagulopathy, systemic hemorrhage and others. The BthMP contribution to the damaging effects induced by crude venom from *Bothrops moojeni* was evaluated “in vivo” in mice concerning hemorrhage, edematogenic, unclothing activities and provoked histological alterations in gastrocnemius muscle. BthMP was capable of provoking unclothing when administered in an intraperitoneal dose of 40µg in mice, not undergoing, thus, the action of endogenous metalloproteinase inhibitors. The BthMP was able to cause the degradation of plasmatic fibrinogen, following blood unclothing. Concerning the hemorrhagic activity, it was observed that BthMP can be classed as lightly hemorrhagic because a 30 µg dose caused less hemorrhage than a 10 µg dose of crude venom. BthMP induced edema when administered in mice paw. Maximum edema was reached in 30 minute time, and this edematogenic action is relevant since it corresponds to about 78% of the edema caused by crude venom. BthMP was also able to induce histological alterations in gastrocnemius muscle of mice when a 50 µg dose was administered and œmpared to 25 µg doses of crude venom, inducing hemorrhage, necrosis and leukocytes infiltrate. These results on BthMP action suggest a possible clinical application against pathologies such as thrombosis, heart attack and disorders related to blood circulation.

Keywords: *Bothrops moojeni*; Snake; edema; hemorrhage*; necrosis.*

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