PURIFICATION AND PARTIAL CHARACTERIZATION OF BMH, A HEMORRHAGIC ENZYME FROM *BOTHROPS MOOJENI* SNAKE VENOM

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Introduction: *Bothrops* snake venoms contain proteinases that contribute to the local effects after envenoming. Objective: In this work, a hemorrhagic proteinase (BmH) was purified from snake venom *Bothrops moojeni* by a combination of gel ion exchange (DEAE Sephacel), filtration (Sephadex-G75) and affinity (Heparin-Agarose) chromatographies. Results: The hemorrhagin was homogeneous by SDS-PAGE and had a molecular mass of 32 kDa by treatment with ß-mercaptoethanol. The subcutaneous injection of BaH (50µg) into dorsal skin of mice induced the formation of a hemorrhagic halo of approximately 20 mm of diameter. BmH had fibrinogenolytic activity. The hemorrhagin cleaves the Aα-chain of fibrinogen first, followed by the Bβ-chain, and shows no effects on γ-chain. The fibrinogenolytic activity of BmH was stable in solution up to 60 °C. Proteolytic activity was inhibited by β-mercaptoethanol, but not by chelating agents (EDTA) and benzamidine. Conclusion: BmH is a hemorrhagic proteinase which may play a relevant role in local and systemic bleeding characteristic of *Bothrops moojeni* envenomations.

Keywords: *Bothrops moojeni*; Hemorrhage; Metalloproteinase; Proteolytic; Snake venom