PURIFICATION AND PARTIAL CHARACTERIZATION OF A PROTEASE (MOO-42) FROM *BOTHROPS MOOJENI* SNAKE VENOM

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Introduction: *Bothrops* snake venoms are a complex mixture of biological active peptides and proteins, which can cause local and systemic lesions including pain, edema, hemorrhage, tissue necrosis, and blood coagulation disorders. Objectives: A proteolytic enzyme from *Bothrops moojeni* venom, named Moo-42, was purified by gel ion exchange, filtration and affinity chromatographies. Results: The purified Moo-42 showed a single protein bands on analytical polyacrylamide gel electrophoresis and had molecular weight of 27,600 by SDS-polyacrylamide gel electrophoresis. The enzyme was proteolytically active against bovine fibrinogen as substrate. When fibrinogen and Moo-42 were incubated at 37º C, the enzyme first cleaved the Aα-chain then the Bβ-chain and shows no effects on γ-chains. The fibrinogenolytic activity of Moo-42 had a pH optimum of 9.0 and was stable in solution up to 37°C; activity was completely lost at =60 °C. Its specific azoproteolytic activity was equivalent to 50 U/µg. Moo-42 was devoid defibrinating, coagulant and hemorrhagic activities. Conclusions: These properties suggest that Moo-42 belongs to class α-fibrinogenase snake venom proteinases. Key words: *Bothrops moojeni*, fibrinogenolytic enzyme, protein.