PURIFICATION AND CHARACTERIZATION OF Bothrops jararacaFIBRINOGEN

Vieira, C. O., Morais, K. B., Tanaka-Azevedo, A. M.
Laboratório de Fisiopatologia, Instituto Butantan, São Paulo, Brasil.

Fibrinogen is a plasma glycoprotein that acts on the final phase of the coagulation cascade when it is cleaved in fibrin by thrombin. Fibrinogen is composed of three pairs of nonidentical polypeptide chains (Aα, Bβ and γ) interlinked by disulfide bonds. The molecular masses of human fibrinogen chains are 64, 56 and 47 kDa for Aα, Bβ and γ chains, respectively. The aim of this study was to purify *Bothrops jararaca* (*B.jararaca*) fibrinogen and to compare it with human fibrinogen. *Bothrops jararaca* fibrinogen was obtained through barium chloride *B. jararaca* adsorbed plasma, ammonium sulfate precipitation and gel filtration chromatography (Sephacryl S300 HR 26/60 column). *B.jararaca* fibrinogen was reduced and alkylated to the S-carbamylmethyl derivatives using iodoacetic acid. Anti-human fibrinogen and anti-rabbit fibrinogen antibodies were used to visualize Aα, Bß and γ chains from purified fibrinogen separated by SDS-PAGE and electrotransfered by Western Blotting. The molecular masses of *B.jararaca* chains were 71, 60 and 55 for Aα, Bβ and γ, respectively. Although the Aα chain presented a higher molecular mass than human fibrinogen, the other chains have similar molecular masses. Anti-human fibrinogen and anti-rabbit fibrinogen antibodies recognized all chains of *B.jararaca* fibrinogen. The perspective of this work is to determine the N-terminal sequence of the *B.jararaca* fibrinogen chains to compare them with other protein chains, previously described.

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