IMMUNOCHEMISTRY STUDY OF THE B.JARARACUSSU VENOM.

Correa-Netto, C^{1,2}; Foguel, D¹; Aguiar, A.S²; Melgarejo, A.R²; Teixeira R.A¹; Zingali, R.B¹.

¹Instituto de Bioquímica Médica – UFRJ, Rio de Janeiro, Brazil.
²Instituto Vital Brazil, Niterói, Rio de Janeiro, Brazil.

Among the lance-headed pit vipers (genus Bothrops), the B. jararacussu is the Brazilian specie that produces and can inoculate large quantities of venom. It has been shown that B. jararacussu venom is not completely neutralized by antibotropic antiserum as other Bothrops venoms. For that reason the development of a diagnosis kit for the identification of this snake envenomation is desirable. When B. jararacussu venom is submitted to "Immunoblotting" analysis after 2D-PAGE using the anti-jararaca and anti-jararacussu serums we observed regions of different recognition. The basic region (pH10) presents a 29KDa and 16KDa proteins that are not recognize by both serums. The identification of these proteins was done by mass spectrometry after the 2D PAGE fragmentation. The 16KDa protein was identified as Bothropstoxin-I (BthTX-I), the major myotoxin from B. jararacussu venom, while the 29 KDa as a serine protease enzyme. The 29KDa protein presents a high homology with halystase, a serine protease from *Agkistrodon halys* that cleaves fibrinogen without inducing fibrin clotting and cleaves kininogen to produce bradykinin. Our results show that these proteins can be use in order to improve the antiserum quality and also as envenomation biomarkers.

Support: CNPq, CAPES, FAPERJ, IVB.

Key Word: *Bothrops jararacussu* , Bothropstoxin-I, venom biomarkers.