BACTERIOLYTIC ACTIVITY OF CROTOXIN-B AND LYSOZYME ON GRAM-POSITIVE AND NEGATIVE BACTERIA.

Baesse, L.G., Santos, H.L., Homsi-Brandeburgo, M.I., Rodrigues, V.M., Hamaguchi, A.

Instituto de Genética e Bioquímica, Universidade Federal de Uberlândia, Uberlândia-MG, Brasil

Lysozyme is an enzyme found in several biological fluids, catalyzing the hydrolysis of bacterial peptidoglicans. This work's purpose was the partial purification of Lysozyme-c and to verify its lytic activity on bacteria, associated or not with Crotoxin-B (PLA_2). Lysozyme-c was purified from hen egg white on Q-Sepharose, in NH_4HCO_3 buffer 0,05mol/L; pH 9.0, 25°C. When submitted to SDS-PAGE 15%, the void fractions showed only one band. These fractions were pooled and bacteriolytic activity of Lysozyme was verified by turbidimetric method on *Micrococcus lysodeikticus*. Crotoxin is the major component of *Crotalus durissus terrificus* snake venom, responsible for myotoxic and neurotoxic effects. Crotoxin was extracted from the crude venom by centrifugation and chromatography on SephadexG-75, in NH_4HCO_2 0.1mol/L with NaCl 0.1mol/L, pH 3.0, 25ºC. Crotoxin-B subunit (CB) was isolated from Crotoxin on DEAE-SephadexA25 in TRIS-HCl 0.05mol/L with Urea 7.0mol/L, pH 7.2, 25ºC, and its phospholipasic activity was determined. Bacteriolytic activity of CB (150 µg/mL) associated with lysozyme (150 µg/mL) on *E. coli* was significant, inhibiting 31% the bacterial growing, compared with control, whereas pure CB inhibited only 6.11% and crude venom alone (CV)(150 µg/mL) inhibited 34.72%. CB, CV, Crotapotin and Crotoxin (5 µg/mL each one) only showed muramidase activity on *M. lysodeikticus* when they were associated with Lysozyme.

KEY WORDS: Lysozyme-c, Crotoxin, bacteriolytic activity, snake venom.
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CORRESPONDENCE TO: leobaesse@yahoo.com.br.