

Effect of treatment with l-amino oxidase fractions, from *Bothrops jararaca* venom on Ehrlich ascites tumor growth

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Snake venoms have shown antineoplastic activity. The l-amino acid oxidases (LAAOs) present in the snake venoms induce several biological effects such as platelet aggregation, hemorrhage, edema, cytotoxicity, bactericidal effect and apoptosis, the last of which was observed in the neoplastic cell lines L1210, MOLT-4, HL60, and HeLa. The objective of the present work was to evaluate the antitumor effect of LAAO fractions, from *Bothrops jararaca* venom, on Ehrlich ascites tumor growth (EAT). Mice were inoculated by the intraperitoneal (i.p.) route with 1×10^3 EAT cells and treated with the fractions LAAO 1AA, LAAO 1AB, LAAO 2A, LAAO 3A, LAAO SA (0.1mg/Kg) or saline (0.1ml), i.p. The first dose was administered 24 h after tumor implantation and repeated five times in each 72 h interval. Additional control groups with no tumor were treated with the fractions or saline, by the same protocol as experimental groups. After 13 days of EAT implantation, animals were sacrificed and peritoneal cavities were analyzed for tumor (TC), polymorphonuclear (PMN) and mononuclear (MN) cell numbers. Only the treatment with LAAO 1AB fraction had a significant reduction in the TC number when compared with the tumor control group. The PMN and MN influxes were not

significantly altered in any experimental groups. In addition, the control group treated only with the LAAO 1AB fraction showed significant influx of PMN and MN cells. The fraction LAAO 1AB was most efficient in the inhibition of EAT growth and increased significantly PMN and MN cell numbers, just in the control groups.

Key words: Ehrlich ascites tumor, snake venoms, *Bothrops jararaca* venom, l-amino acid oxidases