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Evaluation of *Pseudocerastes persicus*'s venom on cancer cells

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Snake venom is a complex mixture of enzymatic and non-enzymatic peptides and proteins with specific chemical and biological activities that can be used in the treatment of many medical conditions such as cancer. Snake venom cytotoxicity can potentially destroy the tumor cells. Various enzymes isolated form snake venom have anti-tumor properties such as MetalloProteinase (MPs), L- amino Acid Oxidase (LAAOs), C-type lectins and phospholipases A2 (PLA2s). These enzymes manage different mechanisms of action. PLA2s have direct toxic action; LAAOs generates free radical; PLA2s, MP, and LAAOs induce apoptosis; and disintegrins and lectins cause antiangiogenesis. Due to the special geographical situation of Iran, this country is suitable habitat of many snakes from different families. The Persian horned viper (*Pseudocerastes persicus*) belongs to family Viperidae and is found in different province of Iran, Pakistan, Afghanistan, Oman and Iraq. The same as other vipers, the venom of this snake shows the strong hemorrhagic activity. However, few studies have been made on the pharmacological activity of *Pseudocerastes persicus* venom. In this study, we investigated for the first time that the venom of *Pseudocerastes persicus* is cytotoxic to tumor cells and inhibits proliferation of human breast cancer cell lines MCF-7 and lung cancer cell lines A459.

Biography

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