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Antitumor effect of scorpion venom peptides in vivo of male rabbit and in vitro of DU145 cells of prostate cancer model

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[2] &\WRJHQHWLF /DE =RRORJ\ 'HSW)DFXOW\ RI 6FLHQFH 4HQD 6RXWK 9DOOH\ 8QLYHUVL

The modern approach used to characterize various compounds from animal venoms, using advanced proteomic and genomic tools, has been denominated “venomics”. Venoms from various scorpions have been reported to prevent propagation of di erent cell lines such as prostate cancer (DU-145), human leukemia and neuroblastoma. In the present study, antitumor e ect of scorpion venom was detected in vivo of male rabbits and in vitro of PC-3 cell line using cell cycle pro ling analysis, DNA fragmentation assay, and genetic and epigenetic variations by ELISA kits. e results showed that apoptosis was maximum at pre-G1, and cell growth arrest at G1 phase in group IV. Venom di erentially up regulated gene expression of P53, BAX, BCL-2. DNA showed greater and distinct fragmentation in vivo and in vitro of prostate cancer (PC) than venom treated groups. From the previous result we have concluded that L. quinquestriatus scorpion venom induced apoptosis and di erentially modulated the expression of tumour suppressor genes and concomitantly repressing the expression of oncogenes in vivo of induced male rabbits with PC and in vitro of PC-3cell line.

Keywords: antitumor, apoptosis, cell cycle, DNA fragmentation, prostate cancer, scorpion venom, tumor suppressor gene.

Biography

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