

Abstract

Investigation of In Vitro Cytotoxic Effects of *Montivipera xanthina* on Healthy and Cancer Human Lung Cell Lines [†]

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Abstract: Biotoxins have been used for therapeutic purposes in many cultures since ancient times. It is known that from simple to more complex organisms the animal kingdom contain poisons. Works in the field of anti-cancer seems to concentrate especially on bees, spiders, scorpions and snake venoms. In the present study, it was aimed to investigate the in vitro cytotoxic effects of *Montivipera xanthina* on normal and cancer human lung cell lines. For this purpose the cytotoxic effects of venoms collected from both species were investigated using XTT and Clonogenic assay on A549 human lung cancer and Beas-2B human healthy bronchial epithelial cell lines. In cytotoxicity tests it has been determined that venoms of *M. xanthina* concentration dependently decreased the viability of both A549 and Beas-2B cells. As a result of the XTT test, the IC₅₀ values of the *M. xanthina* venom on A549 and Beas-2B were calculated as 1553 µg/mL and 2156 µg/mL, respectively. In the clonogenic test, these values were determined as 2112 µg/mL and 2457 µg/mL for the A549 and Beas-2B cells, respectively.

Keywords: snake venom; anticancer; cytotoxicity



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