Investigation of the Antibacterial Effect of Venom of the Iranian Snake *Echis carinatus*

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**Abstract**

Although some venoms and their isolated compounds have been shown to have antibacterial properties, most have not been investigated for such activity. *Echis carinatus* is one of the most venomous snakes in the world and has an effective haematotoxic venom that destroys endothelial cells and causes haemorrhagia.

In this study, the antibacterial activity of Iranian snake *Echis carinatus* venom against six different bacteria (*Staphylococcus aureus*, Methicillin Resistant *Staphylococcus aureus* (MRSA), *Listeria monocytogenes*, *Bacillus subtilis*, *Salmonella typhimurium* and *Escherichia coli* O157:H7), were investigated. Crude venom (100µg/ml) and different standard antibiotic disks as positive controls were tested by the gel diffusion method. Since the results showed that *Echis carinatus* venom has a significant antibacterial effect against *S. aureus* and MRSA, the minimum inhibitory concentrations (MIC) were also determined for these two susceptible bacteria: this was 80µg ml⁻¹ against both strains. Also, the results determined that *Echis carinatus* venom dose not have a noticeable effect on other tested bacteria.

**Keywords:** antibacterial, venom, *Echis carinatus*.  

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