

Development of *Vipera Palestinae* venom antibodies in chicken egg yolk

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Abstract :

Vipera Palestinae is the most lethal venom-producing snake in Palestine. Anti-venom is usually produced from horses' blood. Chicken egg yolk anti snake venom has shown superiority to anti venom extracted from large mammals by having higher yield, higher specificity, less side effects, and less stress on animals. In this research, the LD 50 for *Vipera Palestinae* was measured first then after injecting the chicken with the venom at different doses IgY was obtained and purified using Polyethylene glycol and filtration, afterwards the neutralizing ability was tested against the crude venom at lethal dose. It was found that the LD50 was 3 ug/kg. Although no precipitation lines were found on immunodiffusion test, the neutralizing ability was assessed and resulted in successful neutralizing ability of the crude venom by the IgY extract. With the positive results and the fact that this procedure provides to be noninvasive and purification is not cumbersome, this approach appears to be a good alternative for the mammal's blood extraction of anti-venom. Further studies needs to be carried out to quantify the amount of IgY, the purity of extracted IgY, and the Ed50 for the snake anti-venom IgY.