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Determination of antiviral effect of *Nerium oleander* distillate on some viruses

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Chemical extract of *Nerium oleander* (NO) is identified as *in vitro* antibacterial and antifungal, while there is not any study about antiviral effect of NO. The aim of this study was to evaluate *in vitro* effect of NO distillate (NOD) on different viruses [(Bovine Herpesvirus-1 (BHV-1), Herpes Simplex Virus-1 (HSV-1), and Bovine Adenovirus-1 (BAV-1)]. Lyophilized NOD was dissolved at concentration of 10 mg/mL with distilled water and filtered. Vero and MDBK cells were grown at 37 °C in DMEM containing 10% FCS, 10 mg/mL of streptomycin, 10000 IU/mL penicillin G, nystatin 1250 IU/mL. 50 µL of NOD was treated with 50 µL 100 TCID₅₀ diluted BHV-1, HSV-1 and BAV-1 in 96-well plates. After treatments, Vero and MDBK cells (3x10⁵/mL) were added to wells at 4th, 8th, 12th, 24th and 36th, respectively. Other wells were evaluated as Cell Control (CC), Virus Control (VC) and NOD control. Plate was incubated in 5% CO₂ incubator at 72 h after cells were seeded. All wells were examined daily on an inverted microscope. In NOD control and CC were not observed any CPE, whereas CPE was determined in all of BHV-1, HSV-1, and BAV-1 controls. In conclusion, it may be stated that NOD has antiviral activity to BHV-1 and BAV-1. Although NOD has no antiviral activity against to HSV-1 with this method, methalonic extract of *Nerium indicum* has antiviral activity against to herpes simplex viruses. However, different viruses or methods should be investigated for determine antiviral effect of NOD.

Biography

Irmak Dik commenced her PhD from Selcuk University. She works as a Researcher Assistant in Selcuk University, Faculty of Veterinary Medicine. She has published more than 8 papers in reputed journals and she has been working on some project.

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