

## The effect of two dogs' multivalent vaccines on selective immune indices

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### Abstract

Vaccination is the most important preventive measure to protect companion animals against infectious diseases. The aim of the present study was evaluation and comparison the effects of vaccination with two dogs' multivalent vaccines on selective immune indices. twenty healthy 4-month-old dogs of mixed breed and both sexes were randomly divided into two groups. The first and second group of the dogs were vaccinated with polyvalent Biocan (Group A) and Hipradog (Group B) vaccines on days 0 and 28, respectively. Blood was taken from the dogs of both groups on days 0, 28 and 35; The collected sera were assessed for lysozyme, complement, bactericidal activities, and total serum immunoglobulin. The type of vaccine and time had a significant effect on the amount of complement, but their interaction had no significant effect. Also, time had a significant effect on the amount of lysozyme, but the type of vaccine and the interaction between vaccine and time did not have a significant effect on this index. Regarding the bactericidal activity, the type of vaccine, time, and their interaction had no significant effect on the anti-*Salmonella* and anti-*Staphylococcal* activity. Vaccine type, time and the interaction between vaccine and time had a significant effect on the immunoglobulin trend changes based on the ELISA method. The results obtained in the present study indicated that there is no significant difference between these two polyvalent vaccines in terms of antimicrobial properties; however, the Hipradog vaccine in comparison with Biocan vaccine, stimulates the production of more complement, lysozyme, and immunoglobulin, so it is recommended to use the Hipradog vaccine for dog's vaccination.

**Key words:** Immune, Multivalent Vaccine, Dog

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