EFFECT OF B-VITAMINS ON IMMUNE RESPONSE OF DOGS TO CANINE DISTEMPER VACCINATION

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ABSTRACT

Canine distemper is an aggressive, contagious, non-curable and often fatal multi-systemic disease of dogs caused by canine distemper virus. Mass vaccination is recommended as the most effective means of containing the infection. Vaccination has considerably reduced the incidence and spread of the disease, but no drug is still available to cure the disease or moderate the symptoms of the disease in the event of an infection. This paper discusses the immunomodulatory role of B-vitamins as an adjunct to vaccination in moderating the infection. Ten 8-weeks old puppies vaccinated with modified live canine distemper vaccine (ForteDodge, USA) were divided into two groups of five puppies each. Group-I was administered vitamin B-complex @ 1ml/kg body weight intramuscularly for seven days, while group-II served as the control. The results indicated that B vitamins significantly (P≤0.05) improved the 12-weeks post-vaccination humoral immune response in dogs inoculated with canine distemper vaccine over the control. The study suggested that synchronized administration of vitamin B-complex along with vaccination would bolster protection against canine distemper infection in dogs.

KEY WORDS

B-complex vitamin, Canine distemper, Cellular immunity, Humoral immunity, Dog

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