OPEN ACCESS Freely available online

ISSN: 2157-7560
Journal of
Vaccines & Vaccination

Opinion Article

Vaccination for Parvovirus in Dogs

Freisl Cuison*

Department of Microbiology and Parasitology, University of Thessaly, Volos 382 21, Greece

ABSTRACT

Canine Parvovirus (CPV or commonly known as "parvo") is one of the most extreme viruses that puppies can get. The virus is also highly contagious, that is why the parvo vaccine is taken into consideration a core vaccine for dogs and puppies however, unvaccinated puppies and dogs younger than 4 months old are at maximum risk. Virus can commonly causes acute gastrointestinal contamination in dogs. CPV-2, the causative agent of acute hemorrhagic enteritis and myocarditis in puppies, is one of the maximum essential pathogenic viruses with excessive morbidity (100%) and common mortality up to 10% in adult puppies and 91% in pups. Parvovirus attacks rapidly, dividing cells in a dog's bone marrow and intestines few signs and symptoms of this virus are lack of appetite; stomach ache and bloating; excessive fever, vomiting, and diarrhea.

Keywords: Hemorrhagic; Intravenous fluids; Gastrointestinal contamination; Viraemia; Maternal antibodies; Vaccine

DESCRIPTION

Effect of vaccination on parvovirus

Vaccination is the most effective measure to control the spread of the infection in dogs and to prevent the development of clinical CPV infection in humans. Most veterinarians use intravenous fluids and antibiotics to treat parvovirus. Although products are available for vaccinating solely against parvovirus, dogs are typically given a combination vaccine. The vaccine contains modified-live (attenuated) viruses, meaning that the vaccine contains the virus in a viable but weakened state. The goal is to stimulate the immune system and induce an immune response without actually causing the disease. Two varieties of CPV-2 vaccines are currently available: A Modified Live Virus (MLV) and an inactivated (killed) vaccine. Only a few inactivated CPV vaccines are available these formulations have low immunogenicity and thus require repeated administration during the primary course and annual boosters. In contrast, MLV vaccines are widely used since they induce a strong, long-lasting (usually life-long) immunity by replicating within the host, without producing significant tissue damage or clinical signs. The MLV CPV-2 vaccine will induce immunity against all 3 CPV-2 strains. IgG-neutralizing antibodies are mediated primarily by IgG-neutralizing antibodies, while secretory IgA and cell-mediated immunity could also be less important in conferring protection after vaccination. CPV MLV vaccines are characterized by an early Onset of Immunity (OOI) and a long Duration of Immunity (DOI). Properly administered, vaccines protect most puppies and dogs from parvovirus. But there are cases of vaccinated canines contracting the disease. Your puppy's immune system is not fully mature or active until around 6 months of age. But this doesn't mean your puppy isn't protected from disease early on. Their mother's first milk, called colostrum, contains maternal antibodies. This acquired immunity is transferred across the placenta while the pup is still in the uterus, and these antibodies provide passive immunity to help fight against disease. Maternally Derived Antibodies (MDA) is absorbed in utero and concentrated within the mammary gland during the final stages of pregnancy. The quantity of vaccine inactivation is relative to the amount of MDA in circulation at the time of vaccination; puppies with high concentrations of MDA generally exhibit a poor response to the vaccine.

Correspondence to: Freisl Cuison, Department of Microbiology and Parasitology, Faculty of Veterinary Medicine, University of Thessaly, Greece, Email id: f.cuison@gmail.com

Received: 13-Jun-2022, Manuscript no. JVV-22-17118; **Editorial assigned:** 15-Jun-2022, PreQC no. JVV-22-17118 (PQ); **Reviewed:** 06-Jul-2022, QC no. JVV-22-17118; **Revised:** 13-Jul-2022, Manuscript no. JVV-22-17118 (R); **Published:** 20-Jul-2022, DOI: 10.35248/2157-7560.22.13.483

Citation: Cuison F (2022) Vaccination for Parvovirus in Dogs. J Vaccines Vaccin. 13:483.

Vaccination schedule

1. Initial vaccine at 6 to eight weeks of age is given.
2. Booster vaccines at 10 to 12 weeks old is administrated.
3. Booster vaccines at 14 to 16 weeks old.
4. A booster vaccination is one year after finishing the puppy series of vaccinations.