Canine parvovirus infection in dog: a case report

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HIGHLIGHTS
- Canine Parvovirus infection in dogs
- Symptomatic diagnosis
- Symptomatic, supportive treatment and its satisfactory prognosis

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ABSTRACT
Canine parvovirus infection is one of the main causes of death in canines mostly in puppies due to hemorrhagic enteritis. The present case was presented at Veterinary Medical Teaching Hospital (VMTH), Department of Clinical studies, FV&AS PMAS-AAUR. The dog age eleven (11) months was suffering from bloody diarrhea, loss of appetite (anorexia), vomiting, dehydration and subnormal temperature, on the basis of clinical signs and symptoms it was symptomatically diagnosed as parvovirus infection. Symptomatic and supportive treatment was performed by using 5 % Dextrose infusion (Unisole), along with Ranitidine @ 0.5 mg/ kg body weight BID I/M, Inj. Vitamin K @1 mcg/kg body weight single dose I/M, Inj. Jetepar-10ml intravenous (I/V), Inj. Onset 8mg intravenous (I/V) and Inj. Transamine (transamic acid @ 5mg/kg body weight for three days. The owner was also educated that they have to avoid feeding to their pet (dog) for 48 hours. The prognosis of the presented case was satisfactory.

Key words: Parvovirus, Canine, Case report, Supportive therapy

1. Introduction Canine parvovirus (CPV) is the most common cause of enteritis and mortality in puppies (Shabbir et al., 2009; Kapel, 1995). Distinctive dimensions of CPV compose it rising and reemerging pathogen of canines especially of dogs worldwide (Buonavoglia, 2006). Parvoviruses have a single stranded DNA genome of 5,000 bases with a hairpin structure (Cotmore and Tattersall, 2007). Parvovirus’s have exceptional evolutionary abilities (Chinchkar et al., 2006; Lopez-Bueno et al., 2006; Truyen, 2006). Canine parvo virus infection is an extremely communicable viral infection of great concern to pet lovers, practicing veterinary physicians, surgeons and scientists due to its high morbidity and mortality rates. Paro virus infects dogs of all age groups; however, the puppies are comparatively more susceptible than adults (Bargujar et al., 2011). Parvo virus infection is generally evidenced with signs including, bloody
diarrhea, vomiting, and harsh dehydration. Hemorrhagic gastro enteritis related to parvovirus infection can be managed by therapeutic employment of antibiotics, fluids coupled with continuous monitoring up to 48 h (Bhutia and Rao, 2008). In this document, we report the efficacy of symptomatic supportive treatment regimens against canine parvovirus (CPV) infection in dogs especially in puppies.

2. Case presentation

2.1. Case reporting station

The present case was reported in Veterinary Medical Teaching Hospital, Department of Clinical studies, Faculty of Veterinary and Animal Sciences, PMAS-Arid Agriculture University Rawalpindi.

2.2. History along with sign and symptoms

The dog age eleven (11) months was suffering from bloody diarrhea, loss of appetite (anorexia), vomiting, dehydration and subnormal temperature. Moreover, the animal was neither vaccinated nor dewormed.

![Figure 1: Affected dog with intravenous therapy.](image)

![Figure 2: Bloody diarrhea (A) and Blood in vomit (B).](image)

2.3. Diagnosis

On the basis of history of no vaccination, age, anorexia, bloody diarrhea, dehydration, vomiting, depression and clinical signs and symptoms it was symptomatically diagnosed as parvovirus infection.

2.4. Treatment

Symptomatic and supportive treatment was performed, by using 5 % Dextrose infusion (Unisole), along with Ranitidine @ 0.5 mg/kg body weight BID I/M, Inj. Vitamin K @1 mcg/kg body weight single dose I/M, Inj. Jetepar-10ml intravenous (I/V), Inj. Onset 8mg intravenous (I/V) and Inj. Transamine (transamic acid)
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@ 5mg/kg body weight for three (3) days (Dongre et al., 2015). The owner was also educated that they have to avoid feeding to their pet (dog) for forty eight (48) hours.

2.5. Prognosis

The prognosis of the presented case was satisfactory because the owner followed the treatment regime as per standard protocol directed by department of clinical studies i.e. continuation of prescribed treatment up to three (3) days with no feeding and drinking

3. Discussion

The canine parovirus infected dogs exhibited clinical signs such as anorexia, bloody diarrhea, vomiting, paleness of mucosa and dehydration. Initiation of fluid and antibiotic with supportive remedy in dogs showed improvement within three (3) days and the affected dogs returned towards the normal pathophysiological condition between four (4) to seven (7) days (Dongre et al., 2015). The results of the present case report (investigation) are in consistent with the result documented by Singh et al., (2008). The highest rate of occurrence of CPV below six months may be due to viral attraction for rapid multiplying intestinal crypt cells in young dogs (pups) with highest mitotic catalog due to alterations in bacterial flora as well as in the diet due to weaning may enhance the susceptibility of pups to CPV (Deka et al., 2013, Stepita et al., 2013).

References


