

Case Report

Parvovirus Infection in Spitz Pup; A Case Report

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ARTICLE HISTORY

Received: 2013-10-04
Revised: 2013-10-23
Accepted: 2013-10-24

ABSTRACT

A 25 day old Spitz pup suffering from severe diarrhoea and vomiting was suspected with Parvovirus infection based on history, clinical signs and laboratory tests. It was treated with cefotaxime antibiotic, meloxicam antipyretic, anti-inflammatory and analgesic along with fluid and electrolyte therapy in addition to antiemetic and multivitamin preparation for three days. Fecal sample was negative for parasitic eggs. Animal responded well to treatment and then only fluid and multivitamin therapy was continued till the animal became healthy. In between deworming was done with pyrantel pamoate.

Key Words: Parvo virus, Spitz, Pup, Gastroenteritis

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ARTICLE CITATION: Yatoo MI, Jhambh R, Melepad DP and Dimri U (2013). Parvovirus infection in spitz pup: a case report. *Res. j. vet. pract.* 1 (4): 41 – 42.

Canine parvovirus (CPV) is a serious and highly contagious disease that is a major killer of puppies as well as unprotected older dogs (Greene, 2011). It affects gastrointestinal tract and myocardium and accordingly manifests as intestinal form or cardiac form. Of the two, former is more common and causes gastroenteritis while as latter causes myocarditis. It usually occurs in puppies that are between six weeks and six months old. Cardiac form occurs in very young pups. Intestinal form is characterized by diarrhoea, vomiting, dehydration, dullness and depression (Ettinger and Feldman, 2010), finally resulting in death. Infection spreads via fecal discharge of viruses and ingestion of contaminated food (Dunn, 1999).

Diagnosis is usually based on history, clinical examination, biochemical tests, urine analysis, abdominal radiographs, and abdominal ultrasounds. For differential diagnosis fecal examination is done to rule out parasitic infection and hematology to rule out bacterial or parasitic infection and to estimate severity of dehydration (Walker *et al.* 1998; Greene, 2011).

A 25 days old Spitz pup suffering from diarrhea and vomiting was presented at Referral Veterinary Poly clinic at IVRI. Animal was dull, depressed and anorectic. It preferred to lay down in sternal recumbency. Animal was neither vaccinated nor dewormed. Diarrhea and vomiting occurred at examination table. Faeces contained blood and were profuse, watery and foul smelling. Vomitus was frothy and greenish coloured. Respiration rate was 27/minute, heart rate 68/minute and rectal temperature 98.6°F. Mucous membrane slightly congested. Abdominal palpation revealed fluid-filled intestinal tract. Fecal sample was negative for parasitic examination. Hematology revealed low RBC count (5.5 mcm), Hb (8.7 g/dl) and WBC (4000/µl) count suggesting virus infection. Based on history of no vaccination, clinical signs and laboratory diagnosis, animal was diagnosed as suffering from parvovirus infection.

Pup was treated with cefotaxime @ 30 mg/kg (Taxim®125 mg/ vial) intravenously twice a day. Antibiotic was used to prevent secondary bacterial infection. Meloxicam@0.3mg/kg (Melonex®5mg/ml, 2ml ampoule), 0.2 ml was used

intravenously twice in day in order to provide analgesia and anti inflammatory response. Dextrose normal saline (DNS@200 ml) and Ringer's lactate (RL@150 ml) was given intravenously along with multivitamin preparation (Concplex) to prevent dehydration and electrolyte imbalance and weakness. Antiemetic ondansetron@0.2 mg/kg (Emeset® Injection, 2 mg/ml, 2ml ampule) was given slowly intravenously once. Animal showed marked improvement 3 days after treatment. Antibiotic and meloxicam was discontinued after 4th day but fluid, electrolyte and multivitamin therapy was continued for 8th day till animal started eating and drinking normally. Multivitamin syrup was kept continue even after recovery. In between deworming was done with pyrantel pamoate@10mg/kg (Susp. Nemocid®50mg/ml) was given orally. Owner was advised to repeat deworming after 21 days and vaccinate pup when healthy.

Pups are more susceptible to parvo virus infection than adults because of low immunity and rapidly multiplying enterocytes and myocytes which are predilection sites for parvo viral replication (Houston *et al.*, 1996). Diagnosis is usually based on history of non vaccination against parvovirus, typical clinical signs of disease as bloody diarrhoea and frothy vomiting besides absence of parasitic eggs or oocysts in faeces on laboratory examination. Walker *et al.* (1998) has set a protocol for parvo viral clinical signs. Symptomatic treatment is mostly being practiced to minimize loss or prevent complications as anti viral drugs are either costly or full of harmful side effects but recent therapeutical trials are also being practised (Martin *et al.*, 2002). Infection can best be controlled from spreading by maintaining proper hygiene and vaccinating pups regularly (Greenwood *et al.*, 1995; Greene, 2011)

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