

CANINE PARVO VIRAL INFECTION AND FELINE PANLEUKOPENIA

Both dogs and cats are susceptible to species-specific (the canine variant does not infect cats and vice versa) **parvo viral infection**. In either species, the virus causes a **similar clinical syndrome**, which is referred to as Parvo in dogs and Panleukopenia in cats. Signs may not occur until up to a week after infection. **Unvaccinated/poorly vaccinated, very young and very old** animals are at greatest risk. **Pit Bulls, Labrador Retrievers, Doberman Pinschers and Rottweilers** seem to be more susceptible to infection with the canine variant and may suffer more severe disease. The character of the parvo virus is to **destroy rapidly dividing cells**. For this reason, the **cells lining the intestinal tract and those making up the bone marrow** are hardest hit. Thus, clinical signs are primarily of the GI tract and from secondary infections that develop from bone marrow suppression (i.e. immunocompromise).

The **most common clinical signs are depression/lethargy, fever, decreased/absent appetite, vomiting and diarrhea**. Diarrhea may not develop until relatively later in the course of the infection. Obvious **abdominal pain** may or may not be present. Various signs of **secondary bacterial infections** can be present. Bacterial infection in the blood (**systemic infection/sepsis**) is the most worrisome type and can lead to a patient in septic shock.

A **tentative diagnosis** of parvo viral infection is based on the general history (i.e. exposure to other cats/dogs, coming from a crowded kennel situation, cattery etc.), vaccination history, clinical signs and supportive blood work findings. Blood work values indicating dehydration and low white blood cell counts (neutropenia) are most consistent. A **definitive diagnosis** is made based on a positive **fecal ELISA test**. The snap ELISA is the most commonly used test in private practices. It is made as a canine parvo test, but cross-reactivity with the feline parvo virus has been reported. Thus, it is used to test for Panleukopenia in cats as well. The test is considered to be relatively sensitive, but false negatives can occur very early and late in infection.

Treatment of Parvo and Panleukopenia is **supportive and symptomatic**. There is **no definitive treatment** for this viral infection. **Aggressive intravenous fluids, electrolyte supplementation and broad-spectrum antibiotic therapy are key**. A hospital stay of several days to a week should be expected. Once out of the hospital, the affected animal should be **kept away from other animals of the same species for 1 month**. The virus is hardy in the environment and the owner should bleach all surfaces possible, before another animal has contact with them.

The **prognosis** for both affected dogs and cats is **relatively good**; as long as, supportive care can be provided for a long enough period of time. Animals that are **very young** and/or develop **sepsis** have a **worse prognosis**, especially if already in septic shock on presentation to the veterinarian. As mentioned above, **several dog breeds may have a worse prognosis for unknown reasons**. The **key to a good prognosis** is early presentation to the veterinarian, early diagnosis and aggressive supportive care for an adequate period of time.