

Canine Parvovirus

A PowerPage Presented By



Parvovirus is a common cause of enteritis in young or unvaccinated dogs. Identification, isolation, and treatment are important. This PowerPage reviews the clinical features and treatment considerations for parvoviral infections.

Key Points

- Key clinical signs include (bloody) diarrhea, vomiting, intussusception, leukopenia
- **Bleach** (sodium hypochlorite) is the only effective disinfectant
- Diagnosis can be confirmed by fecal Elisa or Cite test (may be false negative in first 48 hours)

Relevant Pathophysiology

CPV-2 is highly contagious, spread by fecal-oral route. Virus is extremely long-lived and resistant. Small amounts of fecal contamination of a fomite can be a source of transmission. The virus destroys rapidly dividing cells in intestinal crypts causing secondary villous atrophy.

Clinical Signs

- **Leukopenia, fever**
- Severe, often bloody, **diarrhea**
- **Vomiting**, loss of appetite, lethargy, dehydration

Diagnosis

- Diagnosis is based on history (especially young or unvaccinated dog), signs, and lab work (leukopenia)
- Can be confirmed with **fecal parvovirus ELISA** test
- Antibody titers from serum or gastrointestinal biopsies for characteristic changes can also be used
- If concerned about intussusception, consider ultrasound or contrast radiography

Treatment

There is no specific treatment against the virus, so treatment is supportive to support the patient until their immune system can fight the infection:

- IV Fluid Therapy- Correct initial fluid and electrolyte deficits and then account for ongoing losses and/or lack of intake
- Systemic antibiotics- IV broad spectrum coverage- (i.e. Amikacin and potentiated clavulanic acid or enrofloxacin and ampicillin/cefazolin/metronidazole). Beware of antibiotics that should not be used in young, growing animals.
- Anti-emetics- i.e. Metoclopramide, chlorpromazine, maropitant (Cerenia)
- Gastric protectants- i.e. Ranitidine, omeprazole, sucralfate
- Other considerations- anti-inflammatories, rG-CSF, nutrition, anti-parasitics

Prevention

- Vaccination

- Careful hygiene
- Isolation of ill animals
- Disinfection with bleach

References and Links

Ettinger, Feldman- Veterinary Internal Medicine 3rd ed pp 1215-1216

Conference Proceedings at VIN:

<http://www.vin.com/Members/Proceedings/Proceedings.plx?CID=wvc2004&PID=pr05285&O=VIN>

<http://www.vin.com/Members/Proceedings/Proceedings.plx?CID=bsava2008&PID=pr20298&O=VIN>

Other Links:

http://www.avma.org/animal_health/brochures/canine_parvo/parvo_brochure.asp

<http://www.veterinarypartner.com/Content.plx?P=A&C=23&A=582&SourceID=>

