TREATMENT OF CANINE PARVOVIRUS

* The main goals of treatment for CPV enteritis include restoration of fluid, electrolyte, and metabolic abnormalities and prevention of secondary bacterial infection.
* In the absence of significant vomiting, oral electrolyte solutions can be offered. Administration SC of an isotonic balanced electrolyte solution may be sufficient to correct mild fluid deficits (<5%) but is insufficient for dogs with moderate to severe dehydration.
* Most dogs will benefit from IV fluid therapy with a balanced electrolyte solution.
* Correcting dehydration, replacing ongoing fluid losses, and providing maintenance fluid needs is essential for effective treatment. Dogs must be monitored for development of hypokalemia and hypoglycemia. If electrolytes and serum blood glucose concentration cannot be routinely monitored, empirical supplementation of IV fluids with potassium (potassium chloride 20–40 mEq/L) and dextrose (2.5–5%) is appropriate.
* If GI protein loss is severe (albumin <20 g/L, total protein <40 g/L, evidence of peripheral edema, ascites, pleural effusion, etc), colloid therapy should be considered.
* Nonprotein colloids (eg, pentastarch, hetastarch) can be administered in 5 mL/kg boluses (maximum of 20 mL/kg) over no less than 15 min. The remainder of the maximal 20 mL/kg dose can be administered as a constant-rate infusion over 24 hr and the volume of crystalloids administered decreased by 40–60%.
* Alternatively, transfusion of fresh frozen plasma may partially replace serum albumin while providing serum protease inhibitors to counter the systemic inflammatory response.
* Antibiotics are indicated because of the risk of bacterial translocation across the disrupted intestinal epithelium and the like-lihood of concurrent neutropenia. A β-lactam antibiotic (eg, ampicillin or cefazolin [22 mg/kg, IV, tid]) will provide appropriate gram-positive and anaerobic coverage.
* For severe clinical signs and/or marked neutropenia, additional gram-negative coverage (eg, enrofloxacin [5 mg/kg, IM or IV, sid] or gentamicin [6 mg/kg, IV, sid]) is indicated.
* Aminoglycoside antibiotics must not be administered until dehydration has been corrected and fluid therapy established.
* Enrofloxacin has been associated with articular cartilage damage in rapidly growing dogs 2–8 mo old and should be discontinued if joint pain or swelling develops.
* Antiemetic therapy is indicated if vomiting is protracted, perpetuates dehydration and electrolyte abnormalities, or limits oral administration of medications and nutritional support.
* α-Adrenergic antagonists (eg, prochlorperazine, 0.1–0.5 mg/kg, SC, tid) can worsen hypotension in hypovolemic animals, while prokinetic agents (eg, metoclopramide, 0.3 mg/kg, PO or SC, tid or 1–2 mg/kg/day constant-rate infusion) may increase the risk of intussusception; use of either agent should be restricted to rehydrated and appropriately monitored animals.
* The safety and efficacy of newer antiemetic agents such as ondansetron (0.1–0.2 mg/kg, given slowly IV, bid-qid) and maropitant (1 mg/kg, SC, sid for 5 days) have not been evaluated in CPV enteritis.
* Vomiting may persist despite antiemetic administration. Antidiarrheals are not recommended because retention of intestinal contents within a compromised gut increases the risk of bacterial translocation and systemic complications.
* Previous recommendations for nutritional management of CPV enteritis included withholding food and water until cessation of vomiting, but recent evidence suggests early enteral nutrition is associated with earlier clinical improvement, weight gain, and improved gut barrier function.
* For anorectic dogs, placement of a nasoesophageal or nasogastric tube and bolus or feeding a prepared liquid diet (eg, Clinicare®, or dilute, blended canned diet) should be instituted within 12 hr of admission to hospital. Once vomiting has subsided for 12–24 hr, gradual reintroduction of water and a bland, low-fat, easily digestible commercial or homemade (eg, boiled chicken or low-fat cottage cheese and rice) diet is recommended. Partial or total parenteral nutrition is reserved for dogs with anorexia >3 days that are intolerant of enteral feeding.