

Parvovirus: Is Outpatient Treatment an Option?

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In the Literature

Venn EC, Preisner K, Boscan PL, Twedt DC, Sullivan LA. Evaluation of an outpatient protocol in the treatment of canine parvoviral enteritis. *J Vet Emerg Crit Care (San Antonio)*. 2017;27(1):52-65.

FROM THE PAGE ...

The most severely affected canine parvovirus enteritis patients experience GI distress with dehydration and hypovolemia. Hospitalization is ideal so that therapy can be tailored and patients closely monitored. However, the financial commitment required for these cases makes lower-cost inpatient or outpatient alternatives desirable for owners who cannot afford hospitalization; these alternatives can also help avoid euthanasia, often of puppies.

This prospective evaluation explored the hypothesis that a simulated, outpatient treatment protocol would be comparable to a traditional, inpatient, intensive-care protocol in dogs with parvovirus enteritis.

Dogs ($n = 40$) were treated in-hospital, received IV fluids and dextrose as needed during initial resuscitation, and were given nutritional support and maropitant during the continued-care phase. The inpatient group ($n = 20$) received continuous IV fluid support supplemented with potassium and IV cefoxitin. The outpatient treatment protocol group ($n = 20$) received SC fluids q6h and a single SC cefovecin injection. Blood glucose and potassium levels were monitored and deficiencies supplemented as needed; these treatments were given IV to the inpatient group versus buccally/orally in the outpatient protocol group.

Although the small sample size limits interpretation of results, this pilot study was encouraging. Results suggested that patients may be successfully treated as outpatients at a lower cost. There were greater metabolic disturbances that required inter-

vention in the outpatient treatment protocol group, indicating these patients may require daily veterinary visits and re-evaluation.

Of note, cefovecin, which was used in the outpatient treatment group, has not been studied in dogs with severe gastroenteritis. Because cefovecin is injected SC, it likely takes more time to reach therapeutic blood levels as compared with an IV antimicrobial. Cefovecin is highly protein bound and thus may have unpredictable pharmacokinetics and pharmacodynamics in patients with hypoalbuminemia.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** In-hospital management of severely affected dogs with canine parvovirus enteritis is ideal. SC fluid therapy may be an option as a means for cost containment.
- 2** Outpatient management should include owner education with an emphasis on risks, treatment compliance, frequent communication between the owner and veterinary team, and recognition that declining status requires additional intervention.

Suggested Reading

- Goddard A, Leisewitz AL. Canine parvovirus. *Vet Clin North Am Small Anim Pract*. 2010;40(6):1041-1053.
- Stegemann MR, Sherington J, Blanchflower S. Pharmacokinetics and pharmacodynamics of cefovecin in dogs. *J Vet Pharmacol Ther*. 2006;29(6):501-511.
- Yalcin E, Keser GO. Comparative efficacy of metoclopramide, ondansetron and maropitant in preventing parvoviral enteritis-induced emesis in dogs. *J Vet Pharmacol Ther*. 2017. doi: 10.1111/jvp.12396