



RetroMAD1 PetCare

Proven Efficacy Against Canine Parvovirus

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Materials:

- 32 cases of puppies between 3 and 6 months of age and positive for CPV infection were recruited between Sep 2012 and Feb 2013
- CPV positive *via* CPV Ag Test Kit and clinical signs at the time of presentation of the case
- RetroMAD1, supportive and symptomatic therapy

Methods:

- 11 cases received supportive and symptomatic therapy – Control Group and 21 cases received supportive and symptomatic therapy¹ and RetroMAD1 – RMD1 Group. All cases were assigned randomly
 - RetroMAD1 was administered orally at 0.68mg/kg body weight, twice daily until recovery² or death³
 - Data gathered – typical clinical signs of CPV infection, mortality, duration to recovery or death
1. Supportive and symptomatic therapy included the use of crystalloid intravenous fluid for total parenteral nutrition and to address dehydration, anti-emetics to stop the vomiting, broad-spectrum antibiotics (anti-diarrheal drugs were not used as it may worsen the effects of the disease)
 2. Recovery: reduction in clinical signs: listlessness, hyperthermia, inappetence and diarrhoea.
 3. Death: as determined by sphygmomanometer by auscultation

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Results:

- 54.5% recovery in the Control Group compared with 81.0% recovery in the RMD1 Group, The difference of 26.5 percentage points was significant
- The dogs in the RMD1 Group recovered 1.5 days faster than dogs in the Control Group
- The bloodiness of the diarrhoea was independent of the recovery in both groups
- The age of the dog was independent of the recovery in both groups

| CPV2 cases | Control | RMD1 |
|--|--------------|--------------|
| Recovered (n_1) | 6 | 17 |
| Died (n_2) | 5 | 4 |
| Total Cases ($n_1 + n_2$) | 11 | 21 |
| % Recovery [$n_1 / (n_1 + n_2)$] | 54.5% | 81.0% |

| Mean Days of Recovery | Control | RMD1 |
|----------------------------|-------------|-------------|
| Mean | 6.50 | 4.88 |
| Variance | 4.30 | 3.11 |
| Observations (n) | 6 | 17 |
| Hypothesis Mean Difference | 0 | |
| Difference | 8 | |
| t-Test | 1.7055049 | |
| p ($T \leq t$) 2SD | 0.1264942 | |



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Conclusion (extracted from the thesis of Dr. Juan Carlos M. Peralta^a):

1. RetroMAD1 influenced the result of the treatment of CPV infection based on the number of patients recovered
2. There was a difference in the percentage of recovery between patients treated with RetroMAD1 and patients receiving none.
3. There was no significant difference ($p < 0.13$) in the recovery period between patients treated with RetroMAD1 and patients receiving none. However, in actual clinical practice, a day reduced from supportive and symptomatic treatment period is medically and economically important for the patient and its owner.

a. Thesis presented and accepted on April 2013 at the College of Veterinary Medicine and Agricultural Sciences, De La Salle Araneta University, Manila, the Philippines