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ACCEPTED MANUSCRIPT

Ribavirin and boceprevir are able to reduce Canine distemper virus growth in vitro

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Highlights

- Ribavirin and boceprevir were evaluated against Canine Distemper Virus(CDV)
- Ribavirin and boceprevir significantly decreased CDV replication in vitro
- Anti-virals could broaden the therapeutic resources effective against CDV

Summary

Canine distemper virus (CDV) is a major infectious disease of dogs. Although vaccines were successful to control CDV spread in canine population, the disease is still common and may pose a threat to unvaccinated dogs. In the attempt to develop specific anti-viral therapeutic tools, the efficacy of several molecules against CDV has been investigated *in vitro*. In this study the antiviral efficacy *in vitro* against CDV of ribavirin and boceprevir alone or in combination was evaluated. CDV growth in VERO cells was inhibited by ribavirin, by boceprevir and by a combination of the two molecules at non-cytotoxic concentrations, as evaluated by end-point viral titration in cell monolayers and by quantification of viral RNA using quantitative RT-PCR. By end-point titration, a statistically significant reduction in CDV replication was observed only using ribavirin and boceprevir in combination. By quantitative RT-PCR, a significant reduction of viral growth was

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