Epizootic Catarrhal Enteritis (ECE) in a Ferret

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Signalment and History

- Purchased at 10 weeks of age
- Diarrhea at 14 weeks of age
- No response to treatment
- Euthanasia at 4 month of age
Morphological Diagnosis

Small Intestine, atrophic and lymphoplasmacytic enteritis with intralesional coronavirus antigen
Phylogenetic tree, based on deduced partial amino acid sequences of the polymerase proteins.
Molecular characterization of a novel coronavirus associated with epizootic catarrhal enteritis (ECE) in ferrets

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Abstract

A novel coronavirus, designated as ferret enteric coronavirus (FECV) epizootic catarrhal enteritis (ECE). Initially, partial sequences of the polymerase using coronavirus consensus PCR assays. Subsequently, the complete sequence of the 3'-terminal of the FECV genome were determined. Phylogenetic analysis revealed that FECV is similar to feline coronavirus, porcine transmissible gastroenteritis virus, and human coronavirus 229E. Molecular data were compared with clinical cases of ECE.

JAVMA-Williams-23496-RS-sm anim-0T-4F-KKMK-8BM
Coronavirus-associated epizootic catarrhal enteritis in ferrets (Mustela putorius furo)

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Objective: To characterize the etiologic agent associated with epizootic catarrhal enteritis in domestic ferrets.

Design: Cross-sectional study.

Animals: 158 ferrets with epizootic diarrhea of presumed viral etiology.

The goals of this study were to identify the etiologic agent associated with ECE in domestic ferrets and to characterize the clinical signs observed.

Results: The fecal swab specimens were positive for FECV in 15 of the 158 ferrets. The patients showed a variety of clinical signs, including vomiting, diarrhea, and dehydration.

Conclusion: FECV is the etiologic agent associated with ECE in domestic ferrets. Additional studies are needed to determine the significance of FECV in domestic ferrets.