Pre-treatment with feline interferon-omega and the course of subsequent infection with feline herpesvirus in cats

Summary / Zusammenfassung
Objective: Recombinant feline interferon omega (rFeIFN-w), a type I IFN, may have the potential to limit virus replication and associated clinical signs when administered early in the course of feline herpesvirus type 1 (FHV-1) infection and reactivation, respectively. The effect of rFeIFN-w pre-treatment on the course of subsequent FHV-1 infection in cats was investigated.
Animal studied: Nine SPF cats were divided into IFN-group (n=5) and control-group (n=4).
Procedures: The IFN group was pre-treated for 2 days with 10’000 units rFeIFN-w twice a day topically into both eyes and 20’000 units rFeIFN-w once a day orally, whereas the control group was mock-treated. Subsequently all cats were infected with FHV-1. Samples for FHV-1 DNA detection and quantitation, virus isolation, and titration of FHV-1 antibodies were collected. Clinical and ocular signs were recorded and scored.
Results: Courses of median individual clinical and ocular scores and virus load did not differ significantly between both groups using ANOVA for repeated measurements. Analysis (ANOVA) of each individual ocular parameter revealed significantly higher scores for epithelial keratitis (p = 0.016) in the IFN group compared to the control group. Periods of virus shedding did not differ significantly between both groups using the Wilcoxon rank sum test.
Conclusions: Our results indicated a lack of beneficial effects of rFeIFN-w pre-treatment in the course of primary FHV-1 infection in cats.

Publications / Publikationen

Keywords / Suchbegriffe
cytokine, antiviral state, eye, rhinotracheitis, interferon

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Funding Source(s) / Unterstützt durch
Forschungskredit der Vetsuisse Fakultät

In Collaboration with / In Zusammenarbeit mit
Prof. Dr. Alfred Metzler, Institute of Virology, Vetsuisse faculty Switzerland

Duration of Project / Projektdauer
Feb 2004 to Dec 2004