

Cutaneous Lesions Associated with Feline Coronavirus, FIP, and FIV

Background

The coronavirus of feline infectious peritonitis (FIP) causes necrotizing vasculitis which can arise at many sites. Reported target organs include the eyes, abdominal organs, pleural and peritoneal membranes, and central nervous tissues. Skin lesions have not previously been reported.

Objectives

To report cutaneous lesions associated with coronavirus-induced vasculitis in a cat with FIP and concurrent feline immunodeficiency virus (FIV) infection.

Case Report

A cat was presented with FIP with multi-systemic involvement, including multiple nodular cutaneous lesions. It was co-infected with FIV. The skin lesions were characterized microscopically by a pyo-granulomatous-necrotizing dermal phlebitis and periphlebitis. Immunohistology demonstrated the presence of coronavirus antigen in macrophages within the skin lesions.

Conclusions

This was the first reported case of FIP in which skin lesions have been recognized as a feature of the disease.

Editor Inclusions

Two figures, 16 references.

Author Annotations

In most instances, skin disorders associated with FIV and FeLV are related to recurrent bacterial infections, but these viruses can cause other cutaneous syndromes. For example, FIV may cause a nonpruritic skin eruption characterized by a generalized distribution of papules, crusts, scale, and alopecia. FeLV has been reported to cause a pruritic, crusting dermatosis of the head, and sometimes legs, paws, and trunk.

Similar to FeLV and FIV, skin lesions associated with feline coronavirus are typically related to debilitation. In this case report, a cat had mildly alopecic, erythematous nodules on the neck and forelimbs that were associated with dermal vasculitis in the presence of coronavirus antigen. This case is an important reminder that viruses well known for causing systemic illness can also directly induce dermatologic lesions in cats.

Cannon MJ, Silkstone MA, Kipar AM. Cutaneous lesions associated with coronavirus-induced vasculitis in a cat with feline infectious peritonitis and concurrent feline immunodeficiency virus infection. *J Feline Med Surg* 2005;7:233-236.