NEW FELINE DERMATOLOGIC DISEASES AND NEW APPROACHES TO OLD DISEASES

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There are really no new diseases affecting the skin of cats. What we are seeing is abnormal clinical presentations associated with feline herpes virus and calici virus. Since there are no consistently effective anti-viral drugs, an accurate diagnosis leading to a reasonable prognosis is the goal. It is also important to treat concurrent diseases which may mask the diagnosis.

The second focus of the presentation involves new treatment options for treating immune mediated disorders and refractory eosinophilic granulomatous disorders. Ultimately, the goal of treatment is to discover the underlying cause of the problem. The use of corticosteroids, cyclosporine and other immune suppressive agents will be discussed.

Feline Herpesvirus 1 has been associated with facial dermatitis in the cat. The clinical signs are variable and may include crusts, papules, and ulceration. Because of the similarities to bacterial dermatitis or dermatophytosis the diagnosis may be missed. Biopsy will be diagnostic for a viral etiology but immunohistochemical staining will be needed to confirm herpes virus. There is no specific treatment. Interferon Alpha 0.5-5.0 U/kg/day may be used but there are no scientific reports of its efficacy. This disease may also be self limiting. It is important to search for underlying causes of immune dysfunction such as endo and ectoparasites, inadequate nutrition, corticosteroid abuse, or concurrent diseases such as FeLV or FIV. Fortunately, this clinical presentation of feline herpesvirus is uncommon.

Recently, we have seen (and heard) about young cats (5 months old) with oral ulceration and sloughing foot pads. One confirmed case had calici virus found within the biopsy tissue from the foot pad. Unfortunately, the presence of calici was not necessarily the cause of the foot pad ulceration. Severe bacterial infection was present concurrently. Because of the similarity to mechanobullous congenital diseases (epidermolysis bullosa), biopsy is absolutely necessary for an accurate diagnosis. There are a few key points. If calici virus is a cause of foot pad ulceration, we need to know about these cases. Please contact Dr. Kennis. The severity of clinical signs may be bad enough to consider euthanasia. If this is a newly emerging syndrome, we need to pool the information and spread the word. Formalin fixed tissues may be submitted for calici virus using immunohistochemical stains, once a diagnosis of suspected viral etiology is discovered. Any sloughing foot pads of a cat should be biopsied.

Plasma cell pododermatitis is an uncommon disorder. Clinical signs include abnormally soft foot pads of one or several feet. Ulcerations with crusting and secondary bacterial infections are common. Differential diagnoses include autoimmune diseases, primary fungal or bacterial infections, drug eruption, contact allergy and irritant contact reactions, mosquito hypersensitiviy, and caustic or thermal burns. Underlying food allergy or atopy may be an underlying cause. Because of the broad based differential diagnoses, biopsy and histopathology is essential for a diagnosis. Previous treatment recommendations included the judicious use of corticosteroids. Doxycycline 5mg/kg/day for 6 weeks has been shown to be effective in some cases. Water should be given with a syringe after the medication has been administered to help prevent esophageal strictures from forming. Dr. August recommends at least 3ml of water. The use of doxycycline has been associated with anorexia and gastrointestinal upset. Although the
use of an antibiotic seems preferential to a corticosteroid, careful patient monitoring is indicated to prevent complications associated with doxycycline in the cat. Identifying the cause of the disease is more important than the treatment. There have been anecdotal reports of scented cat litters and carpet deodorizers as a cause of plasma cell pododermatitis. As such, a thorough history is needed.

Eosinophilic diseases in the cat represent a reaction pattern, rather than a diagnosis. Clinical signs include “miliary dermatitis”, eosinophilic plaques, eosinophilic granulomas (linear granuloma), and indolent ulceration. Successful treatment of any of these disorders includes resolution of clinical signs and the discovery of the cause of the problem. The most common causes include underlying allergies to food, fleas, or environmental allergens. Because this is a reaction pattern and a clinical response by the cat there are many differential diagnoses. A simple skin scraping for Demodex gatoi, Cheyletiella, and Notoedres cati is always indicated. A fungal culture is also necessary to rule out dermatophytosis. Direct impression samples may reveal a bacterial or fungal etiology. The inflammatory pattern is usually mixed with a predominance of eosinophils. All infectious agents should be treated before a biopsy is collected.

Miliary dermatitis is a term that describes crusted papules. Pruritus is usually present and allergic causes are the most common etiology. Dermatophytosis is an often overlooked etiology. Primary bacterial infections in the cat are uncommon, but may present as crusted papules.

Eosinophilic plaque is an intensely pruritic disorder. The lesion represents coalescing crusting papules. Clinical signs include raised erosions most commonly on the inguinal and medial thigh regions. Biopsy is needed to rule out neoplasia (mast cell tumor) and infectious agents. Peripheral eosinophilia may be present.

Eosinophilic granulomas (linear granuloma) may present as nodular to plaque like lesions of the skin, mucocutaneous junction, or oral mucosa. Pruritus is variable. Sometimes the only lesion is a swollen chin. Biopsy is needed to rule out other causes such as viral ulceration, neoplasia and infectious granulomas. This is the most difficult eosinophilic disease to treat.

Indolent ulceration usually occurs on the upper lip but may be associated with oral ulceration or other eosinophilic lesions. The most important differential diagnosis is squamous cell carcinoma. Underlying allergy is the most common cause of this reaction.

Treatment involves discovery and resolution of the underlying cause. Antibiotic therapy has been anecdotally effective for indolent ulceration. Cefadroxil (Cefa Tabs) 10mg bid until remission may be attempted prior to other treatment options. Because ectoparasites, especially fleas, are an underlying cause, strict parasite control is essential.

Anti-inflammatory medications are almost always indicated. The goal of therapy is to use the least amount of drug for the duration of time needed to achieve a clinical remission. Blood glucose should be closely monitored. Corticosteroids should be considered a mainstay of therapy. Prednisolone or prednisone 2.2mg/kg/day orally may be used. However, methylprednisolone 1mg/kg twice daily (4mg for a 10# cat) seems to work better in the author’s opinion. Depo Medrol 10-20 mg SQ every 14 days until a remission is reached is a reasonable option for cats that will not accept oral medications. A limit of 3 injections is the usual protocol. Please be aware that this product has been associated with heart failure in some cats. Intrallesional triamcinolone has been recommended by some. A dosage of 0.8mg/kg divided between lesions is sometimes helpful. Anesthesia is needed for successful intrallesional injections due to the difficulty and discomfort to the cat.
Non steroidal treatments are usually reserved for treatment failure with corticosteroids. Interferon alpha 60-300 U/day orally has been used for indolent ulcer treatment. Anorexia has been a side effect of therapy. Gold salt therapy has been used as a “last resort” medication. Injectable forms are not currently available. Side effects include drug eruptions and renal failure. The risks may be worse than the potential benefit. Chlorambucil (Leukeran) 0.1mg/kg/day tapering to every other day may be helpful. This is a very potent immunosuppressive agent but is usually well tolerated by cats. It is essential to monitor granulocyte numbers to prevent excessive immune suppression. Urine cultures should also be performed while using this drug to identify opportunistic infections.

Cyclosporin A (cyclosporine) (Neoral®) has become a popular treatment option for myriad disorders other than neoplasia. The dose range is 2.5-10mg/kg/day but the most popular dosage approximates 5mg/kg/day. This immunosuppressant agent inhibits T-helper cells early in their immune response. B cells are not affected by this drug. Nephrotoxicity and opportunistic infections are the major concerns with cyclosporine. This drug should be reserved for refractory eosinophilic disorders. Recently, this drug has become popular for the treatment of canine allergy due to environmental allergens. The author has no experience using this drug for allergic felines.