Recognizing Pyoderma: More Difficult Than It May Seem

Kinga Gortel

Although bacterial pyoderma is among the most commonly encountered dermatologic conditions in dogs, some cases present diagnostic challenges even to experienced clinicians. This article presents several unusual manifestations of pyoderma, including bullous impetigo, superficial spreading pyoderma, mucocutaneous pyoderma, and post-grooming furunculosis. Conditions mimicking pyoderma, including juvenile cellulitis, immunomodulatory-responsive lymphocytic-plasmacytic pododermatitis, and pemphigus foliaceus are also described. Diagnostic techniques used for diagnosing and characterizing pyoderma are also discussed.

Antimicrobial Resistance in Staphylococci in Small Animals

Christine L. Cain

Staphylococcal antimicrobial resistance presents an emerging challenge for both human and veterinary medical professionals. Infections associated with methicillin- and multidrug-resistant staphylococci are increasingly encountered by veterinarians and are frequently associated with empiric therapeutic failures and limited systemic antimicrobial options. This article addresses mechanisms of antimicrobial resistance in common staphylococcal pathogens and implications for clinical practice, including indications for culture and susceptibility testing, rational antimicrobial selection, and potential for zoonotic transmission.

Topical Therapy for Drug-Resistant Pyoderma in Small Animals

James G. Jeffers

The appearance and increasing prevalence of methicillin-resistant and multidrug-resistant staphylococcal skin infections has necessitated a change in how those infections are treated. Topical antibacterial treatments have evolved from elective adjunctive therapy to a more essential part of the treatment plan. This article reviews the ingredients and vehicles available for aggressive topical antibacterial treatment and prevention of Staphylococcus skin infections. Additionally, the basic tenets of improving client compliance and product efficacy are outlined.

Feline Otitis: Diagnosis and Treatment

Robert A. Kennis

Feline otitis is reviewed by evaluating the predisposing, primary, and secondary causes. Diagnostic and treatment options are summarized. Emphasis is placed on comparing feline and canine otitis.
Canine Pododermatitis
David Duclos

This review article is meant to help the general veterinarian differentiate between 12 of the most common skin diseases that cause lesions on the canine paw. Most of these either look the same or have important features that are frequently missed. Each of these conditions will be described and the key features to note will be listed. These key features may be historical or signalment information or they may be diagnostic tests that are critical in making clear diagnostic separations between these diseases.

Canine Ichthyosis and Related Disorders of Cornification
Elizabeth A. Mauldin

The stratum corneum acts as a permability barrier to keep the body hydrated while preventing environmental damage and exposure to pathogens and noxious substances. Disorders of cornification (DOC) arise from an inability to form a normal stratum corneum. Most DOC arise secondary to skin allergies, ectoparasitism, endocrine and metabolic diseases. Primary DOC typically arise from single gene mutations. As there is no cure for primary DOC (ichthyoses), a stepwise diagnostic approach is fundamental to establishing a correct diagnosis. Treatment involves a regimen of topical therapy as well as medical scrutiny to address secondary bacterial and yeast infections.

Ischemic Dermatopathies
Daniel O. Morris

The ischemic dermatopathies are a group of vasculopathic diseases that share clinical and histologic features but result from variable causes. Generalized ischemic dermatopathies are typically characterized by atrophic lesions with erythema, scale/crust, erosions/ulcerations, and pigmentary changes. Lesions may affect the toes, tail tip, pinnal margins, bony prominences, or any combination of these areas. Familial dermatomyositis (FDM) most commonly occurs in juvenile collies and Shetland sheepdogs. Ischemic reactions to rabies vaccines may mimic FDM and can occur in any breed. The most reliable symptomatic therapy for any form of ischemic dermatopathy is the combination of pentoxifylline and vitamin E.

Cutaneous Vasculitis in Small Animals
Marie Innerâ

Cutaneous vasculitis is an inflammatory process targeting blood vessels. Underlying factors include drugs, infectious diseases, adverse reactions to food, malignancies, and immune-mediated diseases. Vasculitis is a reaction pattern warranting a workup to identify triggers. Presenting symptoms include purpura, pitting edema, and skin ulcerations. Constitutional signs include fever, depression, and anorexia and seem to be present in the majority of patients. Once a diagnosis is confirmed, treatment and follow-up must be tailored to the individual. High-dose immunosuppressive medications are only recommended once infectious diseases capable of producing a similar constellation of clinical signs have been ruled out.
One of the best-recognized cutaneous manifestations of internal disease includes the skin changes seen in endocrine diseases. Cutaneous manifestations of internal disease can also be seen with certain neoplastic processes. Metabolic disturbances in zinc, lipid metabolism, or increased amino acid catabolism can result in zinc-responsive dermatosis, cutaneous xanthomas, and superficial necrolytic dermatitis, respectively. Certain infectious diseases can result in skin lesions that may provide visual clues but also critical diagnostic information if the skin is biopsied and cultured. Recognizing those skin changes that are clinical markers for internal disease can expedite the diagnosis and timely management of several systemic diseases.

Cyclosporine is an immunomodulatory medication that is efficacious and approved for atopic dermatitis in dogs and allergic dermatitis in cats; it has also been used to successfully manage a variety of immune-mediated dermatoses in dogs and cats. This article reviews the use of cyclosporine in veterinary dermatology including its mechanism of action, pharmacokinetics, drug interactions, side effects, and relevant clinical updates. Dermatologic indications including atopic/allergic dermatitis, perianal fistulas, sebaceous adenitis, and other immune-mediated skin diseases are discussed.

Pruritus, or itch, is defined as “a sensation that, if sufficiently strong, will provoke scratching or the desire to scratch.” Pruritus is a symptom associated with a wide variety of causes and treatment options. Topical therapy is becoming the new target for the treatment of pruritus. The treatment of pruritus in the dog must be approached in a systematic manner and should include the search and resolution of the primary causes. Identifying and treating the primary cause of pruritus greatly increases the success rate of any therapy for pruritus.

This article presents an overview of alternative therapies for skin disorders including traditional Chinese medicine (acupuncture and Chinese herbs), homeopathy, and Western herbs and plant extracts. The medical and veterinary literature on the aforementioned modalities will be reviewed with a focus on reduction of inflammation and pruritus of the skin and ear canal in the canine species. Clinical application and potential adverse effects will also be included when available.