A editorial note on canine dermatitis.

Veena Priyadarshini S*

School of Life Sciences, B.S. Abdur Rahaman Crescent Institute of Science and Technology, Chennai, Tamil Nadu, India

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Editorial

One of the symptoms of atopic illness is atopic dermatitis. Dermatitis is the most common symptom of atopic illness in humans, and it can be followed by respiratory disease later in life as part of the so-called "atopic march." Atopic dermatitis affects both humans and animals and is the most common atopic illness manifestation in some species (e.g., dogs). As our pet's exposure to indoor surroundings and processed meals has risen, atopic dermatitis in dogs has become more frequent. Atopic dermatitis in dogs has clinical and immunological features that are very comparable to the human version.

The availability of atopic study dog colonies has considerably aided in understanding the disease's complicated etiology. Controlled investigations incorporating allergen exposures can be conducted in research settings to track the progression of lesions and better understand the dynamic changes in inflammatory cytokines over time. Multiple biopsies can be obtained in these circumstances, and different inflammatory mediators can be measured at various time periods. The availability of these models has aided in the discovery of novel potential targets, such as IL-31.

Genetics of cad

Multiple genes involved in skin barrier function and cutaneous inflammation have been found to be down- or upregulated in the skin of privately owned atopic dogs as well as in a canine model of AD. In the latter research, 361 genes involved in inflammation, wound healing, and immune response processes had higher expression, whereas 226 genes involved in differentiation and skin barrier function had lower mRNA quantities in allergen-treated skin of sensitized dogs. A strong relationship with chromosome 27 has been discovered in atopic German shepherds, particularly with genes linked to the synthesis of Plakophilin-2 and it is an essential structural protein found in epithelial and immunological cells. Boxer, West Highland White Terrier, French bulldog, Bullterrier, American cocker spaniel, Poodle, Chinese Sharpei, Dachshund, Collie, are some of the breeds that are susceptible.

Symptoms

a) Itching

b) Scratching incessantly

c) Scuffing the carpet

d) Hair thinning

e) Skin that is greasy or flaky and has an odor

f) Their paws are being chewed.

g) Saliva staining (red/brown stains on your dog's fur from licking)

h) Ear flaps are reddened, and there may be a black waxy discharge.

i) Skin thickening or darkening (especially in hairless areas)

j) Rashes or redness on the stomach

k) On the body, there are spots or crusts.

Diagnosis

Flea comb: If there is flea filth or live fleas, you have a flea infestation.

Tape strips: A tiny sample of skin cells and surface microorganisms is collected using sellotape and examined under a microscope. If yeasts and bacteria are present, this will typically reveal them.

Skin scrapes: Scraping the top layer of the skin to inspect under a microscope is called a skin scrape. This is used to identify mites that reside beneath the surface of the skin.

Hair plucking*:* This will help us to discover parasite and fungal diseases in the hair.

Wood's lamp: A UV light is used to identify various forms of fungal infection using Wood's lamp (ringworm).

Blood test: Blood testing can be performed to determine what allergies dogs with allergic dermatitis are allergic to. This can occasionally be beneficial in avoiding allergy triggers.

Treatment

Medicated Baths, Antihistamines, Antibiotics and Antifungal Medications, Flea Control, Omega-3 and Omega-6 essential fatty acid supplements**,** Hypoallergenic Diets, Corticosteroids and Immunosuppressive Agents, Immunotherapy (Hypo-sensitization), Environmental Control, Thyroid Medication.

***Correspondence to:**

Veena Priyadarshini S
School of Life Sciences
B.S. Abdur Rahaman Crescent Institute of Science and Technology
Chennai
Tamil Nadu
India
E-mail: veenapriya31@gmail.comm