## Food Hypersensitivity in the Dog and Cat



Food hypersensitivity in the dog and cat can cause a myriad of effects on several different systems of the body, with the integument and digestive system being most commonly affected.

Non-seasonal pruritus is one of the more common manifestations of food allergy. The pattern of pruritus can be a clue, with food allergy commonly associated with otitis and perineal pruritus (ears and rears). Because no reliable test yet exists for diagnosing food allergy, feeding trials from six to eight weeks remain the only method of diagnosing food allergy in the dog or cat.

It is well known that chicken and beef are some of the more common allergens for food-allergic patients (Jeffers). With the increased knowledge of cross-reactions between many intact proteins (such as chicken with other poultry, beef with other ruminants or dairy), the utilization of hydrolyzed protein diets continues to grow. Because of lower price, veterinarians (and certainly clients) are tempted to use one of the plethora of OTC "novel" protein diets as a test diet. However many studies continue

8-year-old Bichon Frise mix with non-seasonal itch pruritis

to show they are often contaminated with other common proteins (Raditic 2011), and even if they were pure, the concern with cross-reactivity remains. Clinical experience shows us no one single diet is always effective in a food-allergic patient. Failures with hydrolyzed protein diets occur when some of the protein remains intact, so verifying that 100% of the protein is hydrolyzed to a small enough size is essential (Olivry 2010).

## **Double-Blind Clinical Trial**

When one compares efficacy between hydrolyzed diets, certain diets prove superior in efficacy, or with fewer adverse events. In a 16-week, double-blinded, crossover clinical trial in 57 dogs, a hydrolyzed salmon-based diet (Blue Buffalo NVD HF) proved as efficacious as a well-known hydrolyzed poultry-feather diet (Royal Canin Ultamino) at diagnosing food allergy in dogs, with statistically fewer adverse events (Lewis 2019).

For a food trial to be effective, concurrent treats and chewable medications or nutraceuticals must also be eliminated. I remind clients some people react adversely to peanut dust on an airline flight! Nearly one in three of this author's patients with food allergy will exhibit concurrent gastrointestinal manifestations,

ranging from frequent vomiting and diarrhea to more subtle signs such as flatulence or frequent (more than two) bowel movements per day. The classic or hallmark clinical sign for food allergy in the cat is pruritus, especially of the head. Others will manifest as "self-induced alopecia", or any of the variable eosinophilic granuloma complex.

## References

Jeffers JC et al. Responses of dogs with food allergies to single-ingredient dietary provocation. 7AVMA 1996

Olivry T, Bizikova P. A systematic review of the evidence of reduced allergenicity and clinical benefit of food hydrolysates in dogs with cutaneous adverse food reactions.

Veterinary Dermatology 2010, 21,32-41

Raditic DM, Remillard RL, Tater KC. ELISA testing for common food antigens in four dry dog foods used in dietary elimination trials. Journal of Animal Physiology and Animal Nutrition 95 (2011) 90–97

Lewis T, Laporte C, Moore G, et al. Evaluation of a new hydrolyzed salmon-based diet in dogs with suspected cutaneous adverse food reaction: a multi-center randomized triple-blinded clinical trial.

North American Veterinary Dermatology Forum 2019, Austin TX.

