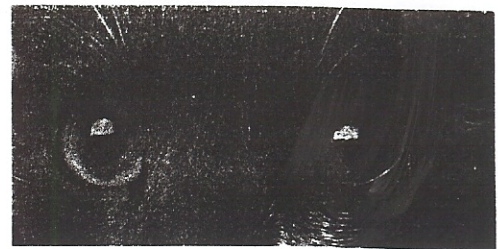


Something to Chew On!



Your Information Source on Pet Nutrition

Hypoallergenic Diets

By Bernhard P. Pukay, D.V.M.

In the last few years, commercially-formulated hypoallergenic diets have become increasingly popular and readily available to veterinarians and pet owners. This growth in the "special-diet" segment of the pet food market reflects a growing awareness of, if not necessarily an increased incidence in, the occurrence of adverse reactions by dogs and cats to commercial pet foods, including food hypersensitivity, dietary intolerance and idiosyncratic reactions.

Food hypersensitivity is defined as a nonseasonal pruritic skin disorder of dogs and cats that occurs when a pet eats a diet that contains an ingredient to which it is allergic. The major complaint and primary consistent finding is pruritus. Clinical features of food hypersensitivity in the dog and cat are well-documented in the veterinary literature.

Food allergies in dogs and cats are thought to account for approximately 5% of all skin cases and 15% of allergic dermatoses seen in clinical practice. The term "food allergy" is often mistakenly used to describe adverse reactions to food in general and should only be used to describe food sensitivities that have an immune-mediated basis.

The pathomechanism of food hypersensitivity remains poorly understood. In most cases, the offending allergen is a glycoprotein found in the diet. It is not known whether sensitization occurs in the intestinal mucosa or once the allergen is absorbed. In fact, it may be that glycoproteins become allergenic only after digestion or as a result of food processing (e.g. heating). However,

once exposed to an offending allergen, the ensuing immune response (predominantly IgA) reduces the amount of antigen that is able to cross the mucosal barrier.

In dogs, the most common offending allergens are beef, dairy products, chicken, wheat, eggs, corn and soy. In cats, the most common allergens are fish, beef and dairy products. However, pets can be allergic to foods other than these and to more than one kind of food.

The most reliable and accurate method of diagnosing food hypersensitivity is elimination diet trial-testing, incorporating a "novel" protein and carbohydrate source to which the pet is not normally exposed. Intradermal testing and serologic tests (RAST, ELISA) are considered worthless.¹

The test diet must be free of additives (preservatives, food colouring, flavouring). For this reason, commercial "hypoallergenic" diets are unreliable as an elimination diet and should not be relied upon. Instead, the test diet must be home-made. In dogs, commonly used ingredients include tuna fish (canned in water), rabbit, venison, turkey, duck, and lamb/mutton. In cats, frequently used ingredients include rabbit, venison, or strained lamb or ham baby food. These can be mixed with potatoes, rice or tapioca in both canine and feline diets. Since these diets are not adequately balanced nutritionally, vitamin, mineral

and essential fatty acid supplementation is necessary if a prolonged testing period is anticipated. For most dogs and cats, a test diet consisting of 1/3 protein, 2/3 carbohydrate, 2% corn oil (on dry matter basis), supplemented with a vitamin and mineral mixture, will meet the animal's nutritional and essential fatty acid requirements.

In the past, veterinarians utilized a feeding trial of only 3 weeks duration to rule out food hypersensitivity but this has proven to be inadequate.² A home-made elimination diet must be fed for at least 10 to 13 weeks, in both dogs and cats, in order to truly rule out food hypersensitivities. During this time period, nothing else must be fed to the pet, including snacks, treats, rawhide chew toys, etc. Foraging must be eliminated as well.

If pruritus is reduced significantly or ceases completely while on the trial diet, provocative testing should be done. This involves feeding the offending diet again. Pruritus should recur within 48 hours, although pruritus may recur as late as 10-14 days post-feeding. A return of pruritus after provocative testing confirms the diagnosis of food hypersensitivity. A search for the offending ingredient(s) can then be instituted.

Once the diagnosis of food allergy has been made and the offending allergens determined, a commercially available "hypoallergenic" diet can be chosen.

1 Scott, DW, et al. Small Animal Dermatology, 5th. edition. WB Saunders Co., Philadelphia. 1995:232

2 Rosser, EJ Jr. Diagnosis of food allergy in dogs. J.Am.Vet.Med.Assoc. 1993:203:259.



Look for It!

CVMA Pet Food Certification Program