DERMATOLOGY PEARLS

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PEARL OF THE MONTH: FOOD ALLERGY UPDATE

Food allergy is the cause for approximately 10% of all allergic skin diseases in dogs and cats. It can be challenging to diagnose, and at this time serologic testing for food is not accurate in animals. The only accurate diagnosis (and treatment) is the hypoallergenic diet trial with no other foods or treats for a minimum of 6 weeks; some veterinary dermatologists recommend 12 week food trials.

When choosing a hypoallergenic diet, it is important to identify which food allergens to which the dog or cat has previously been exposed. In dogs the most common food allergens described in the literature are beef, dairy, wheat, egg and chicken. In cats the most common food allergens are to beef, dairy, and fish. Up to 50% of food allergic animals are allergic to more than one food item.

There are basically three options for hypoallergenic diets:

- 1. Home-cooked novel protein diets; these may be ideal, but can be labor intensive for busy owners and also can be difficult to balance for maintenance requirements should the owner prefer to continue to home cook. If a home-cooked diet is to be continued beyond the 6-8 week test period, then a veterinary nutritionist should be consulted (www.balanceit.com, www.petdiets.com).
- 2. Commercial novel protein hypoallergenic diets, which can be in prescription or over-the-counter form. Due to higher levels of quality control in manufacturing, prescription hypoallergenic diets are preferred over OTC diets as the test diet. Many OTC "lamb and rice" diets also contain chicken and corn, and even some OTC diets claiming to be actual restricted novel proteins contain other ingredients such as eggs when the ingredient list is carefully examined. A recent study compared ingredients between a prescription venison-based diet and four OTC venison diets selected based on not having listed soy, beef, or poultry in the product ingredient list. Each diet was tested using an enzyme linked immunosorbent assay (ELISA) for soy, poultry, and beef antigens by an outside food laboratory. The veterinary therapeutic diet was negative for all 3 food antigens. Three of the four OTC venison diets tested positive for soy, poultry, and/or beef. One of the OTC venison diets was negative for all the test antigens, but contained rice protein.
- 3. Prescription hydrolyzed protein diets. A recent review article analyzed data from multiple studies investigating hydrolyzed diets for the diagnosis and treatment of food allergy in dogs. The studies included both dogs with experimentally-induced food allergy as well as naturally occurring disease. They found that although many food allergic dogs benefitted from hydrolyzed diets, 10 to 50% of dogs with adverse food reactions exhibited increased clinical signs after ingesting partial hydrolysates derived from foods to which they were hypersensitive. Therefore the recommendation was made to use hydrolysate-containing diets in dogs suspected not to be hypersensitive to their individual components. More simply, if a hydrolyzed diet is chosen as a test diet for a hypoallergenic diet trial, it is best to avoid chicken or soy-based hydrolysates in dogs which have been exposed to chicken or soy in their prior diets.