

Sebaceous Adenitis

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Sebaceous adenitis is an autoimmune disease whereby the immune system attacks the sebaceous glands in the skin. It is characterized by scaling, alopecia and may or may not be itchy. This autoimmune disease is unique in the sense that it is also heritable. Standard poodles, akitas, Havanese, vizslas and Samoyed dogs are more likely than other breeds to develop this condition. Certain breeds may manifest signs of sebaceous adenitis in different ways. For example: Standard poodles develop discoloration and straightening of the hair in addition to scaling and alopecia. Samoyeds tend to develop plaques of scale. Akitas may have more extensive alopecia, seborrhea and even deep bacterial folliculitis and furunculosis. They may also manifest systemic signs of malaise, fever, and weight loss, especially if there is a severe secondary infection. Hungarian vizslas and other short-coated breeds have multifocal, annular and serpiginous areas of alopecia and fine white scaling that occur progressively over the top of the head, ears, and dorsal trunk. Havanese dogs often have dry, thick scale that extends into the vertical ear canal. Sebaceous adenitis can also occur in rabbits and rarely in cats.

There are other skin conditions that can mimic sebaceous adenitis, most notably: allergies, *Cheyletiella sp.*, bacterial skin infections, dermatophytosis and mycosis fungoides. The presence or absence of itching helps narrow the list of possibilities. Superficial and deep skin scrapings and surface cytology will help rule in mites and secondary infections. A hair pluck will reveal the typical profuse follicular casts. These are often macroscopically visible and matt the hairs together. Skin biopsy is diagnostic, revealing inflammation targeting sebaceous glands and the absence of sebaceous glands in chronic cases. Multiple biopsies are frequently necessary to observe the diagnostic pathology.

The prognosis is good to fair because response to therapy varies among individuals. Mild cases may only require topical therapy. Moderate to severe cases often need a combination of systemic and topical therapy. Topical therapy should be directed at infusing moisture into the skin and coat. Shampoo and spot-on products containing phytosphingosine (Douxo Seborrhea Spot-on®) or ceramides may be particularly helpful. Topical olive oil and/or a solution of 50:50 propylene glycol and water are also effective, albeit messy. Shampoo containing phytosphingosine or ceramide should be used daily to every other day for 1 month to maximally reduce scaling and replace moisture. Baths should continue 1 to 3 times per week thereafter to maintain the skin and coat. Olive oil, 50:50 propylene glycol/water solution and spot-on products are typically needed 1 to 3 times per week for the first month, then weekly to every other week thereafter. Olive oil or spot-on treatments can be used to treat focal areas that are not particularly responsive to shampooing.

Essential fatty acid supplementation (180mg/10lbs PO q 24 hrs) and vitamin A (10,000 IU PO q 24 hours given with food) may be helpful as adjunct therapies.

Systemic glucocorticoids administered at anti-inflammatory doses may be of value in early cases where inflammation is prominent. However, glucocorticoids are of less value in chronic and minimally inflamed cases. Some dogs with sebaceous adenitis are very itchy, and the pruritus is sometimes refractory to steroids. Cytopoint® may be helpful for some pruritic patients.

Doxycycline (5-10 mg/kg PO q 12 h) and niacinamide (250mg PO q 12 h for dogs < 20 lbs and 500mg PO q 12 h for dogs >20 lbs) is an effective treatment for many dogs with sebaceous adenitis. This treatment may take 2 to 3 months to reach maximum effect. Gastrointestinal upset is the main side effect of this therapy. Rarely, hepatotoxicity can occur and liver enzymes should be periodically monitored.

Cyclosporine (Atopica®) (5mg/kg PO q 24 h) is effective in many cases of sebaceous adenitis. This treatment may take 6 to 8 weeks to reach maximum effect. Side effects with this medication are minimal and typically are limited to gastrointestinal upset in approximately 20% of patients. Gingival hyperplasia may also occur. This is the only treatment that has been demonstrated to lead to regeneration of sebaceous glands.

For dogs that respond well to therapy, medications should be eventually tapered to the lowest dose that keeps the sebaceous adenitis under control. Some dogs do not respond well, and a combination of systemic therapies may be necessary in dogs with severe disease. Topical therapy should be instituted whenever possible to increase the odds of a good outcome.

