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Supplements for Skin Disorders

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Dermatological problems have multiple etiologies. A multi-pronged treatment approach is most likely to produce results, as opposed to only treating what is obvious (such as pyoderma). Dermatologic cases can be difficult no matter what treatment you use, but nutraceuticals can improve dermatitis in about half of otherwise unresponsive cases. Holistic therapies can be used for general symptoms (such as inflammation) or for specific syndromes (such as lick granulomas). This article will concentrate on nutraceuticals as treatments for specific skin conditions, and will also include some brief comments on nutrition.

Underlying pain

Skin conditions such as lick granulomas (dogs) and overgrooming of an area with subsequent hair loss and miliary dermatitis (cats), are often a sign of chronic pain or discomfort in underlying tissues. If the skin condition is on a lower leg or lower part of the body, the underlying problem is often pain in the back or a joint in the upper part of the leg, or even on the opposite leg. Tail pain is usually manifested as over grooming at the site itself.

Nutritional supplements that decrease pain and/or inflammation are often helpful for these cases.

• DLPA (dl-phenylalanine) is especially helpful for back and joint pain, at a dose of 500 mg BID for a large dog, and proportionally for others.

• Vitamin E (d-alpha tocopherol), 400 IU per day and topically.

• Vitamin C (ascorbic acid), 500 to 1,000 mg BID, for large dogs, is also helpful. Because of the role vitamin C plays in regenerating vitamin E back to its antioxidant form, I recommend they always be used together. Vitamins E and C are also useful for pemphigus.

• Curcumin phytosome – the phytosome form is absorbed 29 times better than the regular form, allowing pharmacologically active levels of curcumin in the body.

Inflammation from foods

Improving nutrition in general will help most health problems, and many articles and books have been written about selecting the proper diet for each animal. In the case of food allergies or intolerance, whenever a food causes an intestinal breach, larger molecules that would not normally enter the circulatory system are absorbed. If they can be pre-digested, the allergenic load is decreased. Both plant-based and animal-based (pancreatic) enzymes can be used. Begin with plant-based; in a severely allergic animal, pancreatic enzymes are the most likely to cause an allergic reaction, are more expensive, and are often not as well accepted.

Grass-finished meat has higher levels of Omega-3 fatty acids, lower fat content, more beta carotene, and less E. coli and salmonella than grain-finished meat. The fatty acid content and profile more closely match that of wild game. Natural or organic meat is not necessarily grass-finished, and may still undergo a final feeding of grain for a month or two. Venison that is commercially raised, using grain to finish the carcass, also has a fatty acid profile that is closer to feedlot-fed beef than to grass-fed beef or wild venison. To decrease inflammation for an allergic animal, it may help to change the meat source to pasture-finished.

Microminerals

A true micromineral source is often overlooked. Microminerals go beyond trace minerals and mimic those found in the sea. They have been leached out of farmland and, except on organic farms, never replaced. Diatomaceous earth and mineral deposits such as bentonite and montmorillonite are sources of microminerals, as are desalinized seawater products. Mezotrace and Quinton Marine Plasma are two commercial supplements that derive from old sea beds or the sea itself. The primary mineral in Mezotrace is calcium, so when feeding large amounts you may have to adjust the diet accordingly.

Antioxidants

An animal that has been given an excess of drugs (including antihistamines, antibiotics, corticosteroids, and other immune suppressants), and even pets who have had no drugs but exhibit an exuberant inflammatory process with all the by-products this implies, store up toxic substances in fat and interstitial spaces. These substances cause further inflammation, both in the skin and the rest of the body, rendering them less able to deal with inflammatory processes. Toxins are processed in the liver with phase I (cytochrome p450) and phase II system enzymes. Phase I system enzymes produce a greater number of free radicals, and are increased when there are higher levels of toxins present.

Antioxidants in as many forms as possible are critical to counteract this process and decrease inflammation: • Vitamins E and C • Bioflavonoids • Carotenoids • Grapeseed extract • Acai, goji, blueberries, blackberries and noni berries or juice • Sprouts (high in superoxide dismutase) • Coenzyme Q10 (help fuel cells to speed detoxification reactions)

Help for skin inflammation

Essentially all dermatological problems cause inflammation of the skin. Many of the supplements discussed above also help directly with skin inflammation:

• Antioxidants help decrease inflammation, so vitamins C and E can help. Reported results using vitamin E have been mixed, but this may be because it was not used with vitamin C. Without C to restore its action, the pro-oxidant form accumulates and gradually starts inducing more inflammation.

• Vitamin A can be used topically for feline acne and acanthosis nigricans, and anywhere that Retin-A is used. Published reports of vitamin A toxicity involve large amounts consumed over a relatively short time (e.g., 100,000 IU per day for a cat for six months), and it takes years on an all-liver diet to see the effects. Long term ingestion of relatively lower doses can still be toxic, however. If an animal is already getting fish oil as a supplement, it is wise to calculate the total amount ingested before increasing the dose. A daily dose of 25,000 IU of vitamin A for a large dog has benefits and is safe. This is in the form of real vitamin A, not beta carotene. Some bottles say vitamin A, and underneath in small print "(in the form of beta carotene)". Besides the fact that beta carotene does not have the same effect that vitamin A does, pure beta carotene as a supplement has been linked with an increased incidence of three types of lung cancer in humans. There are no reports of this for mixed carotenoids.

• Antioxidants should be used as mixes, not as lone items.

• Zinc is also helpful for acanthosis nigricans; for any hyperkeratotic lesions, especially involving foot pads and nails; bacterial and yeast infections; and general dermatitis. Excess calcium and copper can interfere with zinc uptake. The dose is 10 mg/kg/day of zinc sulfate.

• Fatty acids can be a two-edged sword. We used to see a good response to skin problems by using Omega-6 fatty acids, but most pet food companies now include enough. Excess Omega- 6s can increase inflammation, so supplements such as Derm Caps may compound this problem. Omega-3 fatty acids are anti-inflammatory over a broad spectrum of tissues, so it is often preferable to use a supplement that only includes Omega- 3s. Flax oil (one source of Omega-3s) cannot be processed by cats into an active form, so fish oil is the preferable source. Dogs only convert about 10%, and it is only converted to EPA. Algal oils on the market only contain DHA (although there are algae that produce EPA), and are expensive. For a vegan, these may be an acceptable alternative. A dose of 50 to 250 mg/kg/ day of Omega-3 fatty acids is a starting point for decreasing inflammation. The best Omega-6:3 ratio for this purpose has been found to be 1.5:1. Older research indicating an ideal ratio of 5:1 never explored a lower ratio.

• Plant sterols are immune-modulating chemicals that decrease inflammation while enhancing immunity.

• Anxiety and stress contribute to symptoms and unwanted behavior in dermatitis. Several nutritional supplements can decrease these issues. One is l-theanine, which is found in products from Vetriscience. As well, l-tryptophan is back on the market and is an excellent anxiolytic.

Melatonin, given half an hour before bedtime, is also helpful. In addition, melatonin has at least some protective effect against skin tumors and also enhances the effects of chemotherapy and radiation therapy. Calcium carbonate can have a calming effect as well.

• Iodine is helpful against candidiasis. Kelp is an excellent source of both iodine and microminerals, and can be administered at the rate of 300 to 600 mg BID for a large dog.

• A concoction of half aloe vera juice and half strong black tea, mixed together and kept in the refrigerator, can be applied as often as needed (at least twice a day) to hot spots or any other areas that are moist and infl amed, and to areas with a strong yeast smell. The tannic acid in the tea has an astringent effect, and aloe vera helps decrease infl ammation and speed healing. It will turn white fur brown, so owners must be warned. One or more ice cubes, melted on severely itchy areas until the area remains cool, can give relief for up to an hour.

Working at the deepest levels with TCVM (Traditional Chinese Veterinary Medicine), homeopathy, chiropractic and other modalities to rebalance the underlying quantum energetic imbalance will prevent future skin problems. Using the above nutritional aids will support the skin and alleviate symptoms while the deeper cures are developing.

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