

## Cutaneous Vasculitis

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Cutaneous vasculitis is a condition that refers to inflammation of blood vessels in the skin. It can result from an atypical response to a drug or a vaccine. It can be a sign of tick borne disease, and it can be an autoimmune disease with no apparent underlying cause. There are other rare causes of vasculitis as well.

Cutaneous vasculitis is characterized by necrosis of the skin. The skin becomes dark, firm and eventually sloughs. The ear margins are one of the most common areas of the skin affected by vasculitis. The typical signs include: hair loss, V-shaped hyperpigmentation stemming from point on a vein where the vasculitis originates, bleeding and necrosis of the skin at the margin. The ear margin may have small, circular sections of skin missing and/or the edges may curl and thicken. Chondritis may also occur.

Vasculitis may also occur at the site of a vaccine. Typically, hair loss with or without crusting will occur where the vaccine was administered.

Vasculitis may also cause punctate lesions in the center of pads. The most serious cases tend to feature crusted eschars randomly distributed across the trunk and legs. The crusts can be removed to reveal full thickness ulceration of the skin.

Vasculitis is diagnosed based on history and physical exam. Many cases have characteristic lesions and can be diagnosed based on appearance, history and cytology. Other cases are less straight forward and require a biopsy.

Once the patient is determined to have vasculitis, it is important to determine the extent of it because the kidneys and liver can be affected. The underlying cause of vasculitis must also be elucidated. A typical case requires a CBC/chemistry/urinalysis and testing for heartworm, lyme, *Ehrlichia* and *Anaplasma*.

Vasculitis is treated by addressing the underlying cause (if possible). This may include: treating the tick borne disease, discontinuing suspected drugs or supplements and avoiding vaccines. It is very important for dogs to receive vaccines, and most cases only require delay of vaccination until the vasculitis is under control or avoidance of certain vaccines.

Wounds caused by vasculitis must be treated with topical antibiotics if bacteria is present. Additional topical care such as antiseptic washes and bandaging may be required depending on the case. Topical therapy requirements often change throughout the course of the disease.

Therapy to address the inflammation of the blood vessels include: steroids, pentoxifylline, cyclosporine, tacrolimus, sulfasalazine and doxycycline/niacinamide. There are various pros and cons associated with each therapy, and the selection of a therapy often depends on individual patient factors.

The prognosis is good for the majority of patients. Vasculitis that occurs as a result of autoimmune disease typically requires life-long therapy.



