

Vasculitis

Transmission or Cause: Vasculitis is inflammation of blood vessels resulting in compromise of blood supply to affected areas. The inflammation is due to overstimulation of the immune system by many possible causes including infections (bacterial, viral, fungal, or tick-borne diseases), drug or vaccine reactions, tumors, and autoimmune diseases (especially systemic lupus). In many cases, an underlying cause cannot be determined.

Affected Animals: Vasculitis is uncommon in dogs and rare in cats. Any age, breed, or gender can be affected, although some breeds may be over-represented such as Jack Russell Terriers and (in cases of vaccine-induced lesions) small silky coated breeds such as poodles and yorkies.

Clinical Signs: Symptoms include bruising, localized areas of necrotic (dead) skin and skin ulcers especially in areas such as the ear pinnae, lips, mouth, paws, tail, and scrotum. In vasculitis caused by rabies vaccination, there is localized hair loss at the site of the vaccine which can occur 1-3 months after the vaccine. Some animals with vaccine reaction can later go on to develop more generalized lesions of vasculitis. Some animals with vasculitis can show other symptoms such as lethargy, decreased appetite, fever, muscle disease, joint inflammation, and swelling of extremities.

Diagnosis: Diagnosis of vasculitis is made by clinical signs, diagnostics to identify underlying causes of the blood vessel inflammation (such as blood-work and testing for infectious or autoimmune diseases), and skin biopsies. Skin biopsies may show inflammation of blood vessels with resultant damage to skin glands and hair follicles. Biopsies taken later in the course of disease may show more non-specific changes such as thinning or ulceration of the skin and loss of skin glands and hair follicles.

Prognosis: The prognosis depends on underlying cause, severity of symptoms, and extent of internal organ involvement.

Treatment: Treatment of vasculitis involves identifying and treating underlying causes, if possible, and using medications to suppress blood vessel inflammation. Medications which may be effective include steroids, pentoxifylline, the combination of tetracycline and niacinamide, dapsone, sulfasalazine, cyclosporin, or azathioprine. In some cases medication may eventually be discontinued, however some animals will require lifelong medication for control.

Prevention: Because there are many potential underlying causes of vasculitis, prevention is not usually possible. However, in dogs with rabies vaccine-induced vasculitis, further vaccinations should be avoided if possible, as they may exacerbate disease.