

## **EROSIVE RHINITIS RESEMBLING WEGENER'S GRANULOMATOSIS IN AN ANATOLIAN SHEPHERD**

**Marlies Böhm BVSc DSAM MMedVet(Med) Dip ECVIM-CA<sup>1</sup>, Sandra Basson M.B.ChB (UOVS) M. Med Rad D (UOVS) M Phil Wildlife<sup>2</sup>**

<sup>1</sup> King Edward Veterinary Referral Hospital, Newton Park, Port Elizabeth, 6045 South Africa

<sup>2</sup> Drs Visser, Erasmus, Vawda & Partners, Bayradiology, P.O. Box 15441, Emerald Hill, 6011, South Africa

**Abstract:** Wegener's granulomatosis is one of the idiopathic immune mediated small vessel vasculitides described in man characterized by the presence of circulating anti-neutrophil cytoplasmic antibodies. It most commonly involves capillaries, venules and arterioles of the ear, nose and throat, lungs and glomeruli. ENT signs which include a destructive rhinitis that may erode nasal cartilages and/or nasal bones, serous otitis media, gingivitis and oral ulcers are the most common presenting signs and affect 85-95% of people. These are typically accompanied by systemic signs including fever, weight loss, arthralgia and myalgia. Pulmonary haemorrhages and / or nodules are evident in 40-60% and glomerulonephritis develops in 40-70% of cases.

We present a case of destructive haemopurulent rhinitis in a young Anatolian Shepherd dog that closely resembles Wegener's granulomatosis as reported in humans. The dog developed four episodes of pyrexia that lasted 3-8 days and were associated with generalized malaise and rhinitis. Nasal discharge was initially serous, turned haemorrhagic and finally became purulent. During the purulent phase of the second episode she sneezed out necrotic nasal turbinates. The dog appeared clinically normal during the 3-6 weeks between periods of pyrexia. Computed tomography during the second episode revealed a dramatic, bilateral lytic rhinitis. The lungs had a generalised ground glass appearance. Other differentials for destructive rhinitis were systematically excluded. Perinuclear anti-neutrophil cytoplasmic antibodies (pANCA) were detected in the dog's serum. Signs resolved promptly and completely once immunosuppressive doses of prednisone were administered and have not recurred in 29 months.

This case is unusual for three reasons: disease manifestation was cyclic; severe lytic rhinitis was associated with pyrexia, neutropenia, malaise and generalized pulmonary changes; and pANCA were detected in the serum. This is the first report on the use of pANCA to

investigate rhinitis in dogs. It is also, to our knowledge, the first description of a relapsing haemopurulent lytic rhinitis in this species. The concurrent manifestations of erosive haemopurulent rhinitis, ground glass opacities on pulmonary CT, pyrexia and malaise resemble Wegener's Granulomatosis as described in man.