ANGIOSTRONGYLUS VASORUM INFECTION AS A SUSPECTED CAUSE OF UNILATERAL HIND LIMB EDEMA IN A GERMAN POINTER DOG

Marja K. de Jong DVM,
Resident Small Animal Internal Medicine

Department of Clinical Sciences of Companion Animals, Faculty of Veterinary Medicine, Utrecht University, Utrecht The Netherlands

m.k.dejong@uu.nl

Introduction

Angiostrongylus vasorum is a nematode residing in the right ventricle of the heart and the pulmonary arteries and is endemic in the Netherlands [1]. The parasite is known to cause a variety of clinical signs including respiratory signs and bleeding disorders. Coagulopathies are common, but not well explained, it is suggested they are due to low grade disseminated intravascular coagulation combined with hyperfibrinolysis [2,3].

Case description

A 3 year old female castrated German Pointer with acute onset, right hindlimb lameness, followed by progressive local cold edema and erythema of the leg from toes to halfway femur, a mass in the right groin area and a productive cough originating from the lower airways.

Results

Ultrasonography of the right hind leg confirmed the presence of subcutaneous edema and a hypoechoic mass in the adductor muscle. Cytology of a FNA of the mass was suggestive of a hematoma, although neoplasia (hemangioma/hemangiosarcoma) could not be excluded. Thoracic radiographs confirmed a lower airway pathology with patchy interstitial infiltrates and minimal pleural effusion fitting with inflammation/infection, hematoma/local bleeding, and less likely, neoplasia.
Abnormalities in the coagulation profile (increased APTT) and a positive A. vasorum antigen test confirmed the working diagnosis of A. vasorum infection. The infection was thought to have led to patchy interstitial infiltrates and a bleeding disorder causing a hematoma leading to obstructive lymphedema of the right leg. Treatment with fenbendazole (50 mg/kg q24h PO for 3 weeks) was started. Check-up after treatment revealed resolution of lameness/lymphedema, a negative Baermann test and markedly improved radiographic appearance of the lungs, supporting the role of A. vasorum in the presenting clinical signs.

Discussion/conclusion

As A. vasorum infection may cause substantial bleeding despite only small abnormalities in coagulation profile, it should be part of the DDX of a hemorrhagic diathesis, (especially) in (hyper)endemic areas [1,3].

References

1. Van Doorn DC, van de Sande AH, Nijsse ER, Eysker M, Ploeger HW. Autochthonous Angiostrongylus vasorum infection in dogs in The Netherlands. Vet Parasitol. 2009 May 26;162(1-2):163-166
2. Sigrist NE, Hofer-Inteeworn N, Jud Schefer R, Kuemmerle-Fraune C, Schnyder M, Kutter APN. Hyperfibrinolysis and Hypofibrinogenemia Diagnosed With Rotational Thromboelastometry in Dogs Naturally Infected With Angiostrongylus vasorum. J Vet Intern Med. 2017 Jul;31(4):1091-1099
3. Glaus T, Sigrist N, Hofer-Inteeworn N, Kuemmerle-Fraune C, Mueller C, Geissweid K, Beckmann K, Wenger M, Novo Matos J. Unexplained bleeding as primary clinical complaint in dogs infected with Angiostrongylus vasorum. Schweiz Arch Tierheilkd. 2016 Oct;158(10):701-709