

Heartworm in dogs

What do I need to know?

Distribution

Heartworm (*Dirofilaria immitis*) is not endemic in the UK, but the number of infections diagnosed is increasing, with most cases in dogs that have travelled from or to areas where the disease is endemic (e.g. southern and eastern Europe).

Transmission

Heartworm is a vector borne parasite that is transmitted by mosquito bites. Infected larvae migrate through tissues and eventually enter the circulation. Adult worms become established in the pulmonary arterial system.

Presentation

Mild: No clinical signs or cough.

Moderate: Cough, exercise intolerance, abnormal lung sounds.

Severe: As above, plus dyspnoea, hepatomegaly, syncope, ascites, death.

Caval syndrome: Sudden onset of severe lethargy and weakness, hemoglobinemia and haemoglobinuria, death.

Diagnosis

Antigen tests (e.g. ELISAs, although inaccurate results are possible) and microfilaria testing are recommended. Heartworm will not be detected until at least 5–6 months after infection. Thoracic radiography can assess the severity of cardiac and pulmonary changes and echocardiography can visualise worms (although this has low sensitivity).

Treatment

Doxycycline administered for 4 weeks prior to adulticide treatment is recommended. Subsequent treatment is a macrocyclic lactone preventative for 2 months, prior to adulticide treatment with melarsomine administered via deep intramuscular injection into the epaxial lumbar muscles. Exercise restriction is essential to minimise complications. Dogs with caval syndrome will require surgical worm extraction.

Public health implications

Unless heartworm infection becomes endemic in the UK, the risk of human infection will probably remain very low.

Find out more in our heartworm factsheet:
<https://tinyurl.com/Dirofilaria-immitis>



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