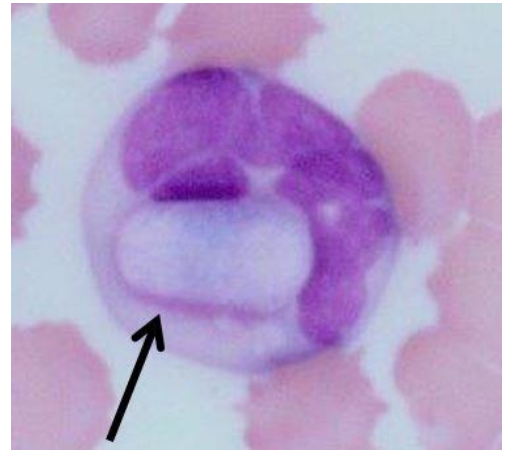


Hepatozoon spp.

Hepatozoonosis

Caused by the protozoan parasites of the *Hepatozoon* genus. *Hepatozoon canis* is most commonly seen in dogs that have travelled outside of the UK as this species is found in Mediterranean countries (especially southern Europe but also the Middle East, Asia, Africa, and India). *Hepatozoon canis* is transmitted by ticks, but dogs become infected when they ingest a tick rather than via a tick bite, unlike most other tick-borne infections. The vector for *H. canis* is *Rhipicephalus sanguineus*. Another species, *Hepatozoon americanum*, transmitted by the tick *Amblyomma maculatum*, is only found in south-eastern and south-central USA. A feline species, *Hepatozoon felis*, has been reported occasionally in Europe as well as other parts of the world.



Hepatozoon canis gamont visible in a neutrophil

FAQs

What are the clinical signs of *Hepatozoon* spp. infection?

Infections can be subclinical but when clinical signs are seen with *H. canis*, they comprise lethargy, fever, and weight loss. Signs are more severe in immunocompromised dogs.

Dogs infected with *H. americanum* show severe signs of fever, pain, lameness, muscle atrophy, and ocular discharge.

Cats are usually subclinically-infected but non-specific signs of fever, lethargy, inappetance, and weight loss can be seen, particularly in immunocompromised cats (e.g. FeLV or FIV infection).

How do I diagnose hepatozoonosis?

Some non-specific changes may be seen on blood tests. Anaemia is often present with *H. canis* and dogs infected with *H. americanum* can have a profound leucocytosis and increased CK and AST enzyme activities (due to a myositis). Radiography may show periosteal bone proliferation in dogs infected with *H. americanum*.

Blood smear examination may reveal typical hepatozoon gamonts in infected neutrophils; these are easier to find in *H. canis* infections compared to *H. americanum* infections.

Reception Hours

Mon-Fri 9am - 5pm

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Hepatozoon spp.

PCR on whole blood is sensitive and specific, can reliably identify *Hepatozoon* spp. Infection, and can distinguish between infecting species (if required).

What treatment options are there?

Treatment for (clinical) *H. canis* infection is imidocarb dipropionate, administered by injection every two weeks until gamonts are no longer visible on blood smears; although levels of parasitaemia can decrease, dogs may remain PCR-positive despite successful clinical response. The prognosis for *H. canis* infection can be good.

Hepatozoon americanum infections cannot be eliminated either and treatment is complex, using combination drug therapy. Advice on treatment should be sought if *H. americanum* is diagnosed.

In cats *H. felis* has been successfully treated with doxycycline.

How can we prevent hepatozoonosis?

Effective tick prevention!

This is achieved using ectoparasiticides to prevent tick infections as well as daily tick inspections on the dog to immediately remove and dispose of any attached ticks. Although *Hepatozoon* spp. infections are not spread by tick bites, dogs will ingest ticks when grooming, as well as ticks recently dislodged by tick inspections, so tick prevention is still very important.

Last reviewed July 2021 by Emi Barker

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