

Ticks and dogs – disease risks and prevention strategies

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STRATHSPEY
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Why do ticks matter to a small animal vet?

- High numbers of dogs presenting for consultations have attached ticks as an incidental finding
- Sometimes an attached tick is the main complaint
- Disease risk
 - Borreliosis (Lyme disease)
 - Babesiosis
 - Anaplasmosis
 - Ehrlichiosis
 - Hepatozoonosis
 - Louping ill virus
 - Local infection



Which dogs are at risk?

- Pets residing in the UK
- Pets which travel
- Working dogs – implications for health and ability to work
 - Sheepdogs
 - Gundogs



Prevalence and significance of ticks in dogs

- 14.9% of dogs had ticks present in one UK-wide study (Smith et al, 2009)
- Year-round problem
- How many dogs have disease as a result of tick bites?
 - Under-diagnosed?
 - Chronicity of Lyme disease
 - Vigilance required

Borreliosis (Lyme disease)

- Corkscrew-shaped bacterium
- Transmitted via *Ixodes* species
- Unknown incubation period
 - Experimentally infected dogs showed joint disease after 2-5 months
- May cause fever, migratory arthritis, lymphadenopathy and (rarely) nephropathy
- Diagnostic challenge



Diagnosis and treatment

- No reliable diagnostic test – clinical signs and risk of exposure are important!
- Serology (measurement of antibody levels) is unreliable
 - False positives – dogs with exposure but no disease
 - False negatives – dogs experiencing disease but not yet mounted measurable immune response (uncommon)
- PCR (identification of organism) can give definitive diagnosis but not a reliable test as organism not always present in sample
- Treatment – 30 day course of doxycycline, may require longer

New disease threats

- Since January 2012, dogs travelling in Europe no longer require tick treatment before returning to UK
- Preliminary findings from UK-wide study this year identified three cases of *Rhipicephalus sanguineus* ticks in dogs which had travelled in France and Spain – vector of Babesia, Hepatozoon and Ehrlichia



Prevention strategies

- Acaricide vs repellent vs vaccination
- Need to consider lifestyle of dog
- Practical considerations – other pets, swimming, working



Vaccination against Lyme disease

- Recently developed and now available in the UK
- “efficacy of vaccine against an infection that leads to clinical disease has not been studied”
- “no information available on efficacy of vaccine in seropositive animals”



Prevention options



Minimise the risk

- Use products with repellent effects eg Seresto, Advantix
- Talk to your vet about what will be best for your own dog
- Be mindful of duration of action – regular reapplication
- Daily visual exam useful but not always practical!



Safe tick removal

- The only safe way to remove a tick is using a tick twister or fine tipped tweezers to grip the mouthparts
- DO NOT apply surgical spirit, sun cream, Vaseline, a cigarette, tea tree oil, or “twiddle it around until it’s hypnotised”
- Train dogs to tolerate close handling to facilitate removal





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