

ESCCAP 


"Pets, pet owners and Lyme disease"




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29/07/2017

Ticks in the UK

- Endemic species and "visitors"
- Ixodes* spp endemic
- Endemic pockets of *Dermacentor* spp





29/07/2017

Lyme Disease Fears As One Third Of UK Dogs Carrying A Tick

Increased tick numbers in the UK led to a heightened threat of Lyme disease and demodicosis, particularly to dogs.



Top Story

Almost a third of dogs in the UK could be carrying a tick, according to the largest ever study of its kind carried out by the country.

The Dog Tick Project examined almost 75,000 dogs as part of research.

DOG WARNING: Flesh eating disease spreading by HUGE rise in KILLER ticks

PARASITIC pets are at risk from a dramatic increase in deadly ticks across Britain as hiking (and other) outdoor activities flourish.

By NIRM SMITH
PUBLISHED: 15:50, 29 JUL 2016 | UPDATED: 04:12, 30 JUL 2016 | 29-07


SHARE f TWEET



A watchdog ticks have just hit the three walking dogs across the country over the last 10 days, according to the huge rise.

Tick Distribution in UK

- Present across UK
- Focal distribution of high prevalence areas
- Ixodes* spp with small foci of *Dermacentor reticulatus*
- I. ricinus* 89%
- I. hexagonus* – 9.6%



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Ixodes ticks

- Hard ticks
- Inornate
- Nymphs/larvae 2-3mm long
- Females readily visible when engorged
- Nymphs thought to be the most important life stage in Lyme disease transmission
- Reservoir and reproductive hosts

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Lyme disease

- *Borrelia burgdorferi*
- Spirochete bacteria
- Zoonotic
- 2.37% of ticks found dogs infected
- Thought to take at least 16-24 hours for bulk of transmission to occur

29/07/2017 10

Pathology/clinical signs

- Polyarthritis/degenerative joint disease
- Fever/depression/anorexia
- Lymphadenopathy
- Renal disease
- Lyme nephritis not recognized in UK
- Cardiac disease rare
- Erythema migrans in human hosts

29/07/2017 11



Diagnosis in dogs

- Organism rarely seen on joint taps and difficult to culture
- PCR highly specific but low sensitivity unless tissue from bite area of skin or joint capsule are used
- Serology sensitive and specific for infection. Sufficient grounds to treat if combined with relevant clinical signs.

29/07/2017

13

Treatment

- Doxycycline 10mg/kg 4 weeks, sometimes longer
- Other tetracyclines and penicillins effective
- Supportive treatment

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14

Lyme disease “hotspots”



- Exmoor
- the New Forest
- the South Downs
- parts of Wiltshire and Berkshire
- parts of Surrey and West Sussex
- Thetford Forest in Norfolk
- the Lake District
- the North York Moors
- the Scottish Highlands

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15

Lyme disease in cats

- Shaw et al (2005) – 2 cats of 60 tested with relevant clinical signs positive for *Borrelia* by PCR
- No correlation found between infection and clinical signs in the field
- Infected cats in experimental conditions appear more resistant to clinical signs although not histopathological changes
- May act as transport hosts for infected ticks



Are pets a Lyme disease risk to people?

- No link between human Lyme disease risk and dog ownership
- Ticks rarely transferred between pets and owners
- Exposure most commonly occurs in shared outdoor environments
- Dogs act as “sentinels for exposure”
- Cats and dogs may act as transport hosts

29/07/2017

17



29/07/2017

18

Cats and dogs as transport hosts

- May move domestic ticks and tick-borne diseases after visiting wildlife "guild"
- Bridging hosts to peri-urban and urban areas
- May introduce exotic ticks and tick-borne diseases from abroad



Tick Vectors and exotic zoonotic infections

- *Rhipicephalus sanguineas*: *Ehrlichia canis*, *Rickettsia conorii*
- *Dermacentor* spp: *Babesia canis canis*
- *Ixodes* spp – Tick-borne encephalitis



- Identification of vectors vital



People want your ticks!

- PHE Tick surveillance scheme
Public Health England
Porton Down
Wiltshire
Salisbury
SP4 0JG
- Gov.Uk website for further information
- University of Bristol tick identification site



29/07/2017

23



29/07/2017

24



Babesia canis in Essex

- Harlow outbreak centred around one field - green space near Todd Brook, off Third Avenue
- Animal and Plant Health Agency (APHA) and Public Health England (PHE) are monitoring ticks in the area
- Extreme caution still required in immediate area
- New cases in Romsford

29/07/2017 26

Rhipicephalus

- 2 cases in South of England in 2014, one in Essex.
- Imported dog from Spain
- Had been treated for ticks before leaving the country
- Juvenile ticks set up infestation in home

29/07/2017 27

Tick borne encephalitis

- Transmitted by *Ixodes* spp ticks
- 1-2% mortality rate with neurological signs in 10-20% cases
- Endemic in Russia, parts of Eastern Europe but pushing West, significant concern in Scandinavia, Holland
- 1 case per 10,000 human-months of woodland activity
- Vital to remove *Ixodes* ticks on return to UK

Importance of tick preventative products for cats and dogs

- Reduce of disease transmission risk
- Reduced risk of introduction of ticks into the country or into the home
- Vital for pets travelling or abroad, with a history of previous tick exposure or walking in high risk areas
- Spot on preps, collars and tablets all available that rapidly kill or repel
- No product 100% effective

29/07/2017 29

Removing Ticks

- Ensure offending object is a tick!
- Tweezers
- Tick hooks

29/07/2017 30

Tweezers



- fine point not blunt
- Direct pulling versus twisting
- BADA web pages moved to ticktwister.co.uk. LDA also useful instructions
- Petroleum jellies or burning not required

29/07/2017

31



Summary

- Dogs and cats exposed to variety of tick-borne infections
- Co infections common
- Screening of travelled pets for ticks and tick-borne diseases vital
- Canine and feline infections do not represent direct zoonotic risk
- Tick prevention in cats and dogs helps prevent spread of infected ticks and tick –borne disease

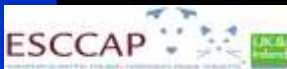
29/07/2017

34

ESCCAP UK & IRELAND

- Independent not for profit company. Acting as a voice and point of cooperation for human tick borne disease groups, government agencies, drug companies and veterinary experts.
- Increased cooperation with PHE and APHA
- Provide clear and constructive information about effective European parasite control and pet travel.
- Brings together some of the UK and Ireland's leading veterinary parasitology experts
- Free and independent advice - www.esccapuk.org.uk

29/07/2017



35

Thank you.

www.mclavick.com.au

