

Brucella Canis - Now the world will never be the same

Since 2021 there has been an increase in the number of cases that have been reported - so what is it? Brucellosis is an infectious disease caused by a bacteria which favours wet and cold conditions and readily survives a freeze/thaw cycle (implication for imported semen - see later) but can be eliminated by high environmental temperature and common disinfectants.

Percentage seroprevalence worldwide is estimated at between 3 to 15 percent. Endemic countries where it is more prevalent include Southern USA, Central and South America and Mexico, Canada, and sporadically from China, Japan, India and Africa. However, a bit more close to home, the general consensus among specialists and APHA is that dogs originating from Europe and especially Eastern Europe should be treated with increased caution. Seroprevalence of *Brucella Canis* is repeatedly higher among stray, sheltered and breeding canine populations.

So what are the clinical signs? It causes a large variety of signs and rarely causes death and the perplexing issue is that the majority of dogs that are infected are subclinical and show no signs while remaining a threat to others. You will get some signs with these subclinical cases - they can be described as 'poor doers' - with mildly increased lymph nodes but otherwise OK. But, the majority can go undetected. When signs are obvious, these can appear in different body systems:

- **Reproductive.** Abortion especially in the last 3 weeks, but can be earlier and mistaken as resorption and failure to conceive. It is usually followed by a vaginal discharge, ranging in appearance, for a protracted period. If the bitches make it to term, the litter can have a mix of infected and non-infected, alive and dead puppies and the puppies that survive are persistently infected and pose a threat both to the owners and general dog population. Male dogs can present with inflammation of the testes.
- **Orthopaedic.** The most common presentation is Discospondylitis, where the infection beds down in the spine and dogs have back pain, lameness and less commonly neurological deficits (loss of some of the normal reflexes).
- **Ocular.** It would appear that up to 14 percent of dogs with *Brucella Canis* infection have some sort of intraocular disease - retinal detachment, intraocular haemorrhage and anterior uveitis are among the signs seen.

Conclusion

There have been reports of dog-to-human infection and due to an overall increase in the number of dogs being diagnosed with it, the Veterinary profession has had to introduce protocols with regard to handling any potentially infected dogs. The protocols work on the premise that any untested dog is seen as infected until proved otherwise. This, of course, has implications for anyone who has imported an Irish Water Spaniel from anywhere in the World where *Brucella Canis* has been recorded. The advice has to be that before any importation is undertaken, tests have to be done prior to the import. This includes testing the stud dog providing semen to be imported, puppies and breeding bitches.

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