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**Leptospirosis: A Review of Clinical
Signs, Diagnostic Testing, Prevention,
and Treatment**

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- 2 Virtual Experience Guide
 - 3 Lecture Notes
 - 4 Blank Lecture Paper

Basic Information

Leptospirosis is a zoonotic disease caused by thin, motile, gram-negative spirochetes of the genus *Leptospira*

Outdoor male intact working dogs may be at higher risk of infection

Clinical Presentation

Often present with non-specific signs: lethargy, anorexia, vomiting, polyuria, increased respiratory effort

Findings of acute kidney injury or acute liver injury are common. May also see thrombocytopenia

Confirmatory Testing

Microscopic Agglutination test (MAT)

- Should not be used to determine causative serovar
- Initial titer with acute illness often negative
- Suggestive positive if single titer > 1:800 in unvaccinated animal OR > 1:6400 in vaccinated animal
- Recommended to have paired titers 2-4 weeks apart that show fourfold increase in titer or seroconversion from positive to negative

PCR Testing

- Sensitive and specific and may be positive with acute infection
- May have false negative if pre-treatment with antibiotics
- Recommended to submit both urine and blood for testing

Point of Care testing is available

Treatment

Doxycycline 5mg/kg PO or IV q 12 hours for 2 weeks will treat leptospiremia and clears carrier state

References

- Cote's Clinical Veterinary Advisor Dogs and Cats, 4th Edition, pages 583-585
- 2010 ACVIM Small Animal Consensus Statement on Leptospirosis