**Lyme Borreliosis**

**Zuku Review FlashNotes™**

**Condensed Version**

**Presentation:**
- **Dogs**
  - 95% of seropositive dogs – asymptomatic
  - 5% of seropositive dogs – usually younger dogs
    - Warm, swollen, painful joints, fever, lymphadenopathy
    - Lyme nephropathy (less common) – hypertension, vasculitis, protein-losing nephropathy
- **Humans** Erythema migrans, flu-like symptoms (malaise, fatigue, fever, stiff neck), arthritis, meningoradiculitis

**Test of choice:**
- Antibodies to C6 peptide is specific to natural exposure
- ELISA antibody detection
- *New Lyme multiplex assay*
- Urinalysis for proteinuria, microalbuminuria or protein/creatinine ratio (always check if seropositive)

**Rx of choice:**
- Doxycycline or amoxicillin if symptomatic or proteinuria and seropositive

**Prognosis:** Arthritis: good; Nephropathy: guarded to poor

**Prevention:** Tick prevention and control; vaccination controversial

**Pearls:**
- Lyme nephropathy is probably due to immune-mediated complexes in glomeruli
- Caused by gram negative, anaerobic spirochete *Borrelia burgdorferi*
- Incubation period Humans – 10-14 days (up to 36 days) Dogs – 2-5 months LOOONG incubation
- Reservoir hosts: White-footed mouse and other rodents.
- Tick vectors: *Ixodes scapularis* in Midwest and northeast; *Ixodes pacificus* on Pacific coast

-------------------------------------------------------------------------------

**Zuku Review FlashNotes™**

**Classic Question(s)**

What are the symptoms of clinical Lyme disease in dogs?

What is a presumptive diagnosis of Lyme disease based on?

Why is Lyme disease vaccination controversial?

What test(s) should be performed in a dog that is seropositive for Lyme disease?

What messages should be communicated to the owner of a dog that is both seropositive and symptomatic for Lyme disease?