

Diagnostic path for *Ehrlichia canis* infections in dogs

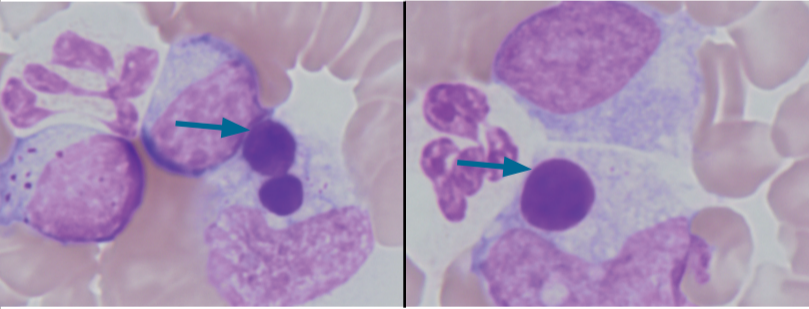


CLINICAL FINDINGS

Clinical history	Major clinical signs	Key clinical pathological findings																																																																						
<ul style="list-style-type: none"> → Tick infestation? → Poor ectoparasiticide compliance? → Travel to endemic area? → Dog breed (German Shepherd dog?) → Loss of appetite? → Weight loss? → Unexplained infections? 	<ul style="list-style-type: none"> → Lethargy → Weakness → Bleeding nose (epistaxis) → Petechial hemorrhages → Hyphema → Anemia (pale mucous membranes) → Fever → Lymph node enlargement → Splenomegaly → Dehydration 	<table border="1"> <thead> <tr> <th>Hematology</th> <th>Low</th> <th>Normal</th> <th>High</th> </tr> </thead> <tbody> <tr><td>RBC</td><td></td><td></td><td></td></tr> <tr><td>Hemoglobin</td><td></td><td></td><td></td></tr> <tr><td>Hematocrit/PCV</td><td></td><td></td><td></td></tr> <tr><td>Platelets</td><td></td><td></td><td></td></tr> <tr><td>WBC</td><td></td><td></td><td></td></tr> <tr><td>Neutrophils</td><td></td><td></td><td></td></tr> <tr><td>Monocytes</td><td></td><td></td><td></td></tr> <tr><td>Lymphocytes</td><td></td><td></td><td></td></tr> <tr> <th>Biochemistry</th> <th>Low</th> <th>Normal</th> <th>High</th> </tr> <tr><td>BUN</td><td></td><td></td><td></td></tr> <tr><td>SGPT (ALT)</td><td></td><td></td><td></td></tr> <tr><td>Alk Phos</td><td></td><td></td><td></td></tr> <tr><td>Albumin</td><td></td><td></td><td></td></tr> <tr><td>Globulins</td><td></td><td></td><td></td></tr> <tr> <th>Urine</th> <th>Low</th> <th>Normal</th> <th>High</th> </tr> <tr><td>Albumin</td><td></td><td></td><td></td></tr> </tbody> </table>	Hematology	Low	Normal	High	RBC				Hemoglobin				Hematocrit/PCV				Platelets				WBC				Neutrophils				Monocytes				Lymphocytes				Biochemistry	Low	Normal	High	BUN				SGPT (ALT)				Alk Phos				Albumin				Globulins				Urine	Low	Normal	High	Albumin					
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CAUTION: Clinical signs and clinical pathological findings are non-specific, thus consider other chronic infectious/inflammatory and neoplastic diseases!

FURTHER DIAGNOSTIC TESTS

Blood smear microscopy	Serology	PCR
 <p>Low sensitivity – only found in acute phase, if at all</p>	<p>(In-house ELISA or laboratory IFAT) Positive = confirmatory for past infection</p> <ul style="list-style-type: none"> → Acute phase: titer might be negative in the initial phase, positive 10–14 days post-infection → Chronic phase: remaining long-lasting titers may confuse other diagnosis 	<p>Available and confirmatory</p>

CAUTION: Always consider the possibility of co-infection after the diagnosis of one vector-borne disease has been made.

THERAPEUTIC CONSIDERATIONS

- Doxycycline
- Imidocarb dipropionate (for concurrent large *Babesia*)

PREVENTATIVE MEASURES

- Compliant year-round tick control with repellent remedy