BLOOD AND TISSUE PROTOZOA: BABESIOSIS

- Also caused by apicomplexan protozoa found nearly worldwide •
- infects RBCs •
- primarily a disease of temperate regions
- found in a variety of animal species that serve as reservoirs
- Ticks primary (also the definitive host)
- May also be acquired via (less common)
 - Blood transfusion 0
 - Transplacental/congenital 0

2. CHARACTERISTICS

	Species	Usual Vector
Rodent Parasite	B. Microti	<i>Ixodes scapularis</i> -complex –
		"black legged" or "deer" tick
	B. Duncani	<i>Ixodes Pacificus –</i> Western
		black legged Tick
Europe	<i>B. Divergens –</i> most	lxodes Ricinus
	common	
	B. vernoatorium	
	microti	



- Immunocompetent individuals:
 - Malarial-like; except no periodicity 0
 - Chronic subclinical infection may also occur 0
- from Notesale.co.uk Page 1 of 1 asymptomatic infections in immunocompetent patients generally **do not** require treatment
- Can be fatal in HIV (+) and splenectomized patients
- generally treated using
 - atovaquone plus azithromycin or 0
 - clindamycin plus quinine 0

4. DIAGNOSIS

- Babesia Multiplies by binary fission ()s
- Indistinguishable trophezeite a c 💇 metocyte

Trophozoite

- Delicate ring forms, resembling P. Falciparum
- Usually multiple \rightarrow usually forms tetrads called "Maltese cross"
- Extracellular forms may be seen in heavy infections
- Also have oval, round, spindled, "racket forms" simultaneously •
- >4 trophozoites per RBC, no Maurer's cleft •
- No hemozoin pigments





- Other Forms of testing: (1) NAAT; (2) Serologic tests e.g. IFA's
- Serologic tests for malaria are negative in Babesiosis
- Patents with malaria may cross-react in Babesia serologies

References: Henry's Clinical Diagnosis and Management by laboratory Methods 24th edition