Ehrlichiosis

Canine ehrlichiosis is caused by tick-transmitted intracellular bacteria of the genus Ehrlichia, which, in dogs, have been identified parasitizing monocytes, granulocytes and platelets. Three genogroups of ehrlichiae have now been identified by 16S rRNA phylogenetic analysis. Genogroup III includes E. canis, which is responsible for widespread disease in tropical and temperate areas of the world. The geographical distribution of E. canis has expanded with the distribution of R. sanguineus. Disease manifestations caused by members of the E. canis genogroup (genogroup III) infecting dogs can be indistinguishable, and there can be strain variation in pathogenicity.

Subclinical persistent infection owing to splenic sequestration of organisms is common. Severe life-threatening chronic ehrlichiosis can develop following persistent infection and can be associated with irreversible bone marrow destruction. Ehrlichiosis is more severe in certain breeds (e.g. German shepherd) and in younger animals. However, coinfection, immune status and strain variation could all play a role.