Babesia sp.: Emerging Intracellular Parasites in Europe

Jeremy S. Gray

Department of Environmental Resource Management, University College Dublin,
Dublin 4, Republic of Ireland

Abstract

The emergence of Lyme borreliosis as the most prevalent arthropod disease of humans in the temperate northern hemisphere has resulted in renewed interest in human babesiosis, transmitted by the same tick vectors. The advent of new molecular tools has made possible a reappraisal of the main parasites involved (Babesia divergens in Europe and Babesia microti in the USA) and it has become apparent that several species are nearly identical to B. divergens, and that B. microti occurs as a species complex rather than a single species. To further elucidate the situation, comparative biological studies on closely related species are required together with more genetic characterisation. Both phenotypic and genotypic features lend support to suggestions that zoonotic B. microti may occur in Europe, but convincing medical evidence is lacking.

Key words: human babesiosis, B. divergens and B. microti taxonomy