Introduction

Babesiosis is an emerging tick-transmitted zoonotic disease caused by an intraerythrocytic parasite of the genus ***Babesia (Herwaldt, 2000)***

Babesial parasites are some of the most ubiquitous and wide spread blood parasites in the world, second only to the trypanosomes, and consequently have considerable world wide economic, medical and veterinary impact ***(Homer et al., 2000).***

Babesial parasites require both a competent vertebrate and non-vertebrate host to maintain transmission cycles. The parasite only infects red blood cells causing haemolytic anemia, thrombocytopenia and atypical lymphocyte formation. Alteration of RBC membranes cause decrease conformability and increase red cell adherence, which can lead to development of acute respiratory distress syndrome ***(Kjemtrup and Conrad, 2000)***.

Studies involving animal hosts other than humans had contributed significantly to our understanding of the disease process, including possible pathogenic mechanisms of the parasite and immunological responses of the host. To date, there are several species of ***Babesia*** that can infect humans ***(Homer et al., 2000).***

In Egypt, babesiosis is an endemic parasitic disease of cattle and buffaloes caused by ***Babesia bovis*** and ***Babesia bigemina***. Currently, detection of the infections is mostly based upon examination of Giemsa stained blood smears or serological tests ***(Salem, 1999).***

Hundreds of cases have been reported since the first domestic case of human babesiosis was reported in 1966 in the United States. Babesiosis in Europe, caused by a different species of Babesia, is more devastating disease. Anecdotal reports of babesiosis in China, Mexico, South Africa and Egypt have been documented. The disease most severely affects patients who are elderly, immuno compromised or have undergone splenectomy. Babesiosis is usually an asymptomatic infection in healthy individuals ***(Chiodini, 2003).***

The spectrum of disease manifestation is broad, ranging from a silent infection to a fulminant malaria – like disease, resulting in severe hemolysis and occasionally death ***(Homer et al., 2000).***

Babesiosis is a zoonotic disease, with the natural acquisition of human cases most often the result of interaction with established enzootic cycles. Thus, an increased population of immunocompromised and splenectomized individuals susceptible to infection and awareness of the disease will result in the discovery of new foci and new agents of human babesiosis ***(Kjemtrup and Conrad, 2000)***.