



V 51 Detection of cases of human babesiosis in Poland

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Clinically overt cases of human babesiosis have not been described in Poland so far. We have studied the possibility of *Babesia* sp. infection after a tick bite in the area endemic for tick-borne encephalitis (TBE) and Lyme borreliosis in the north-east of Poland.

Blood samples were taken on admission from 48 patients referred to the hospital because of various clinical symptoms developing after tick bite within a previous month. DNA was isolated with QIAamp DNA Mini Kit (Qiagen, Germany) and amplified with starters for *Babesia* sp. Blood smears were evaluated for *Babesia* sp. presence in erythrocytes. PCR and serologic testing for Lyme borreliosis, human granulocytic ehrlichiosis (HGE), and TBE were performed.

Babesia sp. DNA was detected in 5 patients: 1. Male with a history of alcohol abuse, with severe systemic infection, fever, hepato- and splenomegaly and generalised oedema. He responded well to antiparasitic treatment. 2. Female with lymphocytic meningitis (TBE). 3. Male with mild unspecific symptoms. 4. Female with a skin lesion reminiscent of erythema migrans. 5. Female with mild unspecific symptoms. The blood smear was positive for *Babesia* sp. only in patient 1. We detected coinfection with *Borrelia burgdorferi* in patient 1, with TBE virus and *B. burgdorferi* in patient 2, and with *Anaplasma phagocytophilum* in patient 5. Surprisingly, no *B. burgdorferi* infection was detected in repeated examinations in patient 4.

We detected *Babesia* sp. in 11% of patients hospitalised within a month after a tick bite. The disease was severe, with a detectable parasitaemia in one patient with a possible predisposing factor (alcohol abuse) and mild or obscured by coexisting infection in the remaining four. The results suggest a high burden of babesiosis in the study area, with a likely predominance of mild and unspecific cases and a possibility of coinfections complicating the disease caused by other tick-borne pathogens.