



P 52 First laboratory-confirmed case of tick-borne fever in dairy cattle in Germany

Cornelia Silaghi^a, Dietmar Hamel^a, Marion Nieder^b, Kurt Pfister^a, Martin Pfeffer^b

^a Comparative Tropical Medicine and Parasitology, LMU Munich, Germany

^b Institute of Animal Hygiene and Veterinary Public Health, University of Leipzig, Germany

Tick-borne fever (TBF) of ruminants is caused by the obligate intracellular bacterium *Anaplasma phagocytophilum* and is transmitted by the sheep tick, *Ixodes ricinus*, the most abundant tick in central Europe. The disease and its causing agent were already described in the first half of the 20th century, but scientific interest only awakened after the discovery that variants of the same agent also cause granulocytic anaplasmosis (GA) in humans, dogs, and horses. *A. phagocytophilum* is known to be endemic in Germany based on (i) its presence in ticks and (ii) the occurrence of GA in dogs and horses, but a Medline search revealed no documented cases of TBF in cattle here.

From September to October, 2010, 2 primipara XFM hybrids (Fleckvieh × Red Holstein) developed fever 2–4 months post partum, after being brought to the pasture again. Further clinical signs included stiff walking, increased salivation, eyes' and nasal discharge, reduced fodder uptake, and decreased milk production. All animals received analgetic treatment while the 2 animals with fever <40°C additionally got Trimethoprim and Sulphadimethoxine until the fever went down. Buffy coat smears revealed morulae of *A. phagocytophilum* in neutrophilic granulocytes in 3 out of 4 cases after Giemsa staining. Specific real-time PCR for *A. phagocytophilum* was positive in all 4 cases after DNA extraction, and IFAT titers up to 1:200 were found using commercially available IFAT slides. For differentiation and characterization of the TBF-causing agent, further PCRs targeting partial 16S rRNA, *msp2*, *msp4*, and *groEL* genes are currently being carried out. This report shows that TBF may be endemic in certain areas of Germany, most likely having been underdiagnosed for a long time. It should be considered as a differential diagnosis of feverish pastured animals and adds new aspects in a public health context.