

## Genetic diversity in *Babesia canis* and associated comorbidities can be fatal in dogs` babesiosis – a case study

**Mădălina Elena HENEA, Mariana GRECU, Sorin Aurelian PAȘCA,  
Andrei Cristian GRĂDINARU, Gheorghe SOLCAN**

Faculty of Veterinary Medicine, "Ion Ionescu de la Brad" University of Agricultural Sciences and Veterinary  
Medicine of Iași, România  
madalina.henea@uaiasi.ro; a.c.gradinaru@uaiasi.ro

### **Abstract**

*The aim of this paper is to briefly present some aspects of Babesia spp. taxonomy, incidence, clinical signs of their infection, and possibilities of prevention, as an introduction to a case study of canine babesiosis presentation. A 7-year-old Malinois dog was presented in August 2020 with signs of generalized icterus, high body temperature and mustard urine, all of them indicating babesiosis. Cytological examination confirmed the large Babesia canis spp., and the biochemical investigations revealed renal and hepatic failure. Although the therapeutic protocol included the specific antidote, imidocarb dipropionate – Imizol® (0.5 ml/10 kg body weight, in a single dose), fluid therapy, vitamin therapy, an antiemetic drug, and supplements for renal and hepatic functions sustaining, the investigated dog died. The post-mortem investigation revealed generalized icterus. We consider the delaying of dog presentation at vet an important factor of this outcome; although an infection with various subspecies of Babesia canis was not excluded, the therapeutic intervention would have been the same.*

**Keywords:** *Intra erythrocyte parasites, jaundice, anemia, antidote*