

P2-12

***Francisella*-like endosymbiont in *Dermacentor reticulatus* collected in North of Portugal**

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Francisella tularensis can cause a wide variety of clinical syndromes including severe, sometimes fatal disease. Regarding the extraordinary potential of *F. tularensis* as an agent of bioterrorism and the frequent occurrence of outbreaks in several European countries, the precise characterization of the epizootiology and epidemiology of the infection is essential to the implementation of prevention measures. In Portugal, recent studies have confirmed the presence of this bacteria in 1,1% of the *Dermacentor reticulatus* analysed. Bacterial endosymbionts with significant homology to *F. tularensis* have been described in several species of ticks. Knowing that the presence of endosymbionts may influence the prevalence of *F. tularensis* in ticks, we tried to confirm if they are also present in our country and therefore could have some impact in the referred prevalence. Using a PCR approach, a total of 59 *D. reticulatus* collected in wolfe (*Canis lupus*) and dogs (*Canis familiaris*) in the North of Portugal were analysed by PCR, targeting the TUL-4 gene of *Francisella* spp. that encodes the 17 kDa lipoprotein. In all the positive results, a partial sequence screened for sequence similarity by BLASTN. The obtained sequence data was analyzed and phylogenetic relationships were assessed by tree construction using different tree building methods within the PAUP software. This study reported the first molecular detection of *Francisella*-like endosymbiont (FLE) in Portuguese *D. reticulatus* ticks (40%), confirming the presence of these bacteria in Portugal and the need to take this into account in ticks and environmental samples detection. The importance of these findings is related to the hypothesis that the presence of FLE may lead to a reduction in vertical transmission and maintenance of infectious bacteria by the arthropod host, influencing the natural cycle of *F. tularensis*.