

Detection of *Mycobacterium celatum* in wild boars in Southern Belgium

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KEYWORDS : mycobacterium ; tuberculosis ; wild boar

Bovine tuberculosis (bTB) remains a major threat in livestock industry and presence of wildlife reservoirs of *Mycobacterium bovis* (*M.bovis*) is an obstacle to bTB eradication in domestic animals. In this context, surveillance of *M.bovis* in wildlife is strategic for the implementation of effective control measures. The aim of this study was to analyse wild boars lymph nodes for the presence of *Mycobacterium* spp. In field conditions, 230 hunter-killed wild boars were investigated in hunting areas spread over 4 provinces in Southern Belgium. Wild boars carcasses were subjected to a systematic post mortem analysis and submandibular lymph nodes were collected for bacteriologic examinations (Ziehl-Neelsen (ZN) staining, histopathological examination and classical mycobacterial culture). At necropsy, no boars presented gross lesions in thoracic and abdominal cavities (organs and associated lymph nodes). Out of the 230 submandibular lymph nodes, 49 (21 %) showed gross lesions. For 43 of them, abscesses of varying sizes were observed, sometimes multifocal, caseous or calcified. For 6 remaining samples, lymph nodes were enlarged and consolidated. Histologic examination showed a few multinucleated giant cells in 5 lymph nodes but no acid-fast bacilli were visible with ZN staining. All the mycobacterial cultures were negative for *M. bovis* but an atypical mycobacterium, *M. celatum*, was isolated from 4 wild boars isolates. This uncommon bacteria was also isolated in 2 cattle farms in the same region (M. Govaerts, personal observation). *M. celatum* is a slow growing mycobacterium which is potentially pathogenic in humans. But the presence of this nontuberculous mycobacterium may be challenging in *M.bovis* diagnosis. Indeed, *M. celatum* could complicate tuberculin skin testing in cattle and serologic screening in wildlife. In conclusion, we report the first detection of *M. celatum* in wild boars but further studies are needed to determine the impact of this mycobacterium in the surveillance strategies related to *M. bovis*.