

P240- Serosurvey of *Mycobacterium avium* Complex in Wild Boars in Portugal

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INTRODUCTION

Mycobacteria belonging to the *Mycobacterium avium* complex (MAC) can infect poultry, pigs and ruminants in the food productions chains which may be a source of food borne illnesses in humans.

Mycobacteriosis is frequently reported among wild boar populations in Europe. The aim of this study was to assess the epidemiological situation of MAC in Central Portugal.

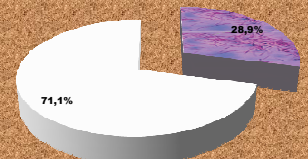
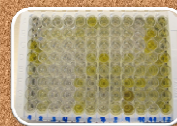
MATERIALS AND METHODS

Sera from 90 hunted wild boars were collected between 2009 and 2012 in natural regions of Central Portugal and stored at -20°C. Demographic characteristics were recorded. Animals were categorized in juveniles (< 8 months) and adults (> 8 months) using tooth eruption patterns.

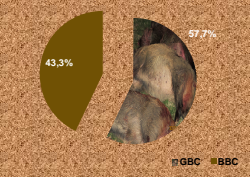
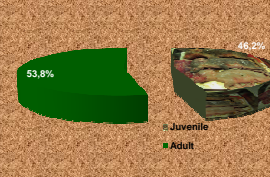
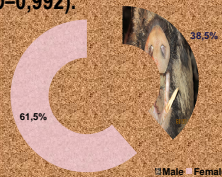
Serological testing was carried out to all sampled animals using a commercial indirect enzyme-linked immunosorbent assay (ELISA) (ID Screen®) test based on detection of antibodies against *Mycobacterium avium* in multiple-species. Chi-squared (χ^2) tests were used to evaluate differences in positivity between adults and juveniles, males and females, presence of lesions and local. The significant level for the test was set at $p=0.05$. Univariate logistic regression was used to calculate the odds ratio.

RESULTS

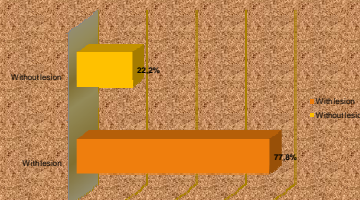
In total, 90 samples of wild boar belonging to 2 counties (Idanha-a-Nova and Penamacor in Castelo Branco; Centre-western Portugal) were investigated for the presence of antibodies against MAC. Twenty six (28.9%) samples were positive, following the ELISA kit manufacturer's instructions.



The seropositivity values among males and females were 38.5 and 61.5%, respectively ($p=0.249$). Regarding age-groups, the lowest value of seropositivity (46.2%) was found in juveniles, and the highest (53.8%) in adults ($p=0.101$). Seropositivity was high in animals with good body condition (57.7%) but differences were not statistically significant ($p=0.992$).



Twenty animals did not show lesions, six (30.0%) of them were seropositive. From the seventy animals that showed any lesion consistent with mycobacteriosis, twenty (28.6%) were seropositive. Serologically positive animals were distributed across the two counties and the differences were statistically significant. Lesions consistent with mycobacteria infection were observed in 70 (77.8%) animals. The possible risk factors for seropositivity were evaluated. In the univariate analysis one variable was found to be statistically significant to seropositivity: the county. The results showed an increased odds for seropositivity when the animals belonged from Idanha-a-Nova when compared with animals from Penamacor (OR 6.28, 95% CI 1.36, 29.09).



CONCLUSIONS

ELISA platforms provide inexpensive and readily automated techniques for high number of samples. However, availability of serum samples from wild animals is often limited. Carcasses with various degrees of decomposition are often the only material available. The results of this survey indicate that antibodies against MAC measured by ELISA are widely distributed in wild boars in Central Portugal.

