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A SEROLOGICAL SURVEY ON PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME (PRRS) VIRUS INFECTION IN SERBIAN WILD BOARS POPULATION*

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Abstract

Porcine reproductive and respiratory syndrome (PRRS) is endemic virus infection of domestic pigs in most countries with intensive pig production, and it is associated with high economic losses. Antibodies to PRRS virus (PRRSV) have been found in pigs almost worldwide. The majority pig farms in Serbia are also positive for antibodies to PRRSV. Although PRRSV is widespread in domestic swine, very little and in the same time controversial information exists about PRRSV infection in European wild boar populations. In consequence, the role of wild boars in the epidemiology of PRRSV infection is still not clear.

The aim of the current study was to investigate the presence of PRRS virus infection in wild boars populations in Serbia, and to assess possible role of wild boars as reservoirs of virus for domestic pigs and in the epidemiology of PRRS infection in Serbia.

Blood samples from 350 wild boars from 53 hunting grounds that are 4.21% of predicted number of wild boars (8323) from 12 districts and 142 hunting grounds of Serbia were collected during the hunting season from October
2011 until March 2012. Blood samples were taken by hunters or by veterinarians from the heart after the wild boars had been shot. Presence of anti-PRRSV antibodies was determined using a commercially available ELISA test kit INGEZIM PRRS UNIVERSAL (Ingenasa, Madrid, Spain) according to the manufacturer’s instructions. Only 3 (0.86%) out of 350 analysed samples was found positive on the presence of antibodies against PRRS virus. Positive samples were found in only two out of 12 examined districts, 1 (1.54%) positive out of 65 examined samples in Zapadnобacki district, and 2 (4.17%) positive out of 48 examined samples in Juznobacki district.

Since the results, recorded for the first time in Serbia, show very low prevalence of PRRSV infection in wild boars in all 12 examined districts, it could be concluded that wild boars probably doesn’t play a significant role in the epidemiology of the disease as source of the PRRSV for domestic pigs in Serbia. Further and more comprehensive research is needed including testing of wild boar samples from the whole country and from a few hunting seasons on antibody and virus presence to obtain more conclusive results on presence and role of PRRSV in wild boars on the epidemiology of disease in Serbia.

Keywords: PRRS, wild boar, seroprevalence, Serbia