

THE POSSIBLE ROLE OF THE DOG IN THE EPIZOOTIOLOGY
OF PIG SARCOSPORIDIOSIS.

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During the last years protozoan Sarcocystis became the focus of interest of several research centres all over the world. Man and carnivores in the rural areas are the source of sarcosporidiosis in domestic animals /Rommel and Heydorn 1972, Fayer and Johnson 1973, Gestrich et al. 1975, Munday et al. 1975, Heydorn 1977, Hiepe et al. 1979/. The present study aimed at examining the role of dogs in the mode of pig sarcosporidiosis transmission under conditions in the Wielkopolska region.

Material and methods

The studies included 497 dogs of various breed, sexes and age from the city of Poznań /600.000 inhabitants/ and 966 dogs, mainly mongrels, of both sexes and different age selected at random in 12 rural areas. From all dogs samples of feces were taken and examined for evidence of sporocysts with flotation method /ZnCl₂-NaCl/. Floated debris was examined under light microscope with 160 x magnification for sporocysts of Sarcocystis suicanis. Moreover, the results of routine examinations of pigs, cattle and sheep after slaughter were taken into consideration.

Results

Sporocysts of S. suicanis were found in 14 dogs out of 497 ones examined in the city of Poznań, i.e. in 2,82%. Whilst out of 966 examined dogs from rural areas sporocysts of S. suicanis were found in 126 animals, i.e. in 13,4%. Out of 154 801 pigs routinely examined in slaughter houses in the Wielkopolska region S. miescheriana was found in 1608 hogs, i.e. 1,04%. Out of these hogs 16 were disqualified because of high intensity of the parasites and 28 hogs were classified as low quality.

It is probable that the transmission of S. miescheriana invasion in these hogs was more extensive for slaughtering examination does not detect every case of the disease especially that of low intensity.

The slaughtering examination of cattle and sheep has shown only single cases of sarcosporidiosis in the tested region. Studies carried out under field conditions have shown that in case of slaughter pigs for domestic purposes fresh meat and affected organs are fed to dogs /Kozakiewicz 1975/.

It is probably the main route of sarcosporidiosis transmission in the rural areas. Man plays less important role in the transmission of sarcosporidiosis.

Conclusions

The extensity sporocysts of S. suicanis invasion is approximately 5-fold higher in dogs inhabited rural areas than in dogs from the city of Poznań. Therefore these dogs might be considered as a main source of pig sarcosporidiosis in this region.

Selected references: Fayer, R., Johnson, A. J.: J.Parasit. 1973, 59:1135; Gestrich, R., Heydorn, A.O., Baysu, N.: Berl.Manch. tierärztl. Wschr. 1975, 88:191; Heydorn, A.O.: Berl.Manch. tierärztl. Wschr. 1977, 90:218; Hiepe, F., Hiepe, T., Hlinak, K., Jungmann, R., Horsch, R., Weidauer, B.: Arch. exp. VetMed, 1979, 33 /6/:819; Kozakiewicz, B.: Medycyna Wet. 1975, 21:41; Munday, B.L., Barker, I.K., Rickard, M.D.: Z. Parasitkde. 1975, 46:111; Rommel, M., Heydorn, A.O.: Berl. Manch. tierärztl. Wschr. 1972, 85:143.