

THE FIRST DETERMINATION OF EIMERIA GUEVARAI Rodriguez et Herrera, 1971. IN YUGOSLAVIA

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Oocysts of three species of coccidia were found after fecal examination of wild pigs from the "Priština" hunting camp. Apart from the coccidia already established in Yugoslavia (Eimeria deblickei and E. scabra), Eimeria guevarai Rodriguez and Herrera, 1971. was detected for the first time. Since this is the first observation of this species in our country, we present the morphological characters of the oosysts of Eimeria guevarai that were found.

Key words: wild pigs, coccidia, Eimeria species, Eimeria guevarai.

INTRODUCTION

Reports about coccidia in domestic and wild pigs are not numerous, either in domestic or international scientific literature, especially when compared to findings concerning this group of parasites in other hosts.

Pellerdy (1974) states that there are ten species of Eimeria and three species of Isospora parasiting in domestic and/or wild pigs. The Eimeria species are the following: E.scabra, E.polita, E.perminuta, E.porci, E.romaniae, E.guevarai, E.deblickei, and E.neodeblickei. Only the last three were reported in wild pigs.

Eimeria deblickei, E.perminuta, E.scabra, E.spinosa, E.polita and Isospora suis were found in previous investigations in this country (Cvetković and Tomanović, 1965; Lazić, 1973; Milivojević, 1975).

MATERIAL AND METHODS

By routine fecal examination of wild pigs from the "Priština hunting camp we had the opportunity to broaden the list of coccidia found in Yugoslavia with another species — Eimeria guevarai.

The coprological examination was made both by the flotation method (with saturated sodium chloride and saturated zinc-sulphate solution) and the sedimentation method.

Oocysts of coccidia were obtained by the flotation method (saturated sodium-chloride solotion). The determination of various species was made by microscope analysis (magnification 16x40) and by measuring relevant mor-

phological details (oocyst dimensions, the thickness of the oocyst wall, the diameter of the sporont etc.).

RESULTS AND DISCUSSION

In Spring 1990, we made a coprological examination of several animal species from the "Priština" hunter camp. Then we examined seven samples of feces from wild pigs.

The eggs of several helminths were found, i. e.: *Dicrocoelium dendriticum* (in one sample), *Echinochasmus perfoliatus* (tree samples), *Oesophagostomum* spp. (in one animal), *Metastrongylus* spp. (in three samples of feces), *Capillaria* spp. (in one pig) and *Trichuris suis* (in two samples). Apart from the parasites listed, many coccidia oocysts were evident in all of the pigs examined.

By detailed analysis of unsporulated and sporulated oocyst, sincluding their morphology and by measuring details important for classification, it was

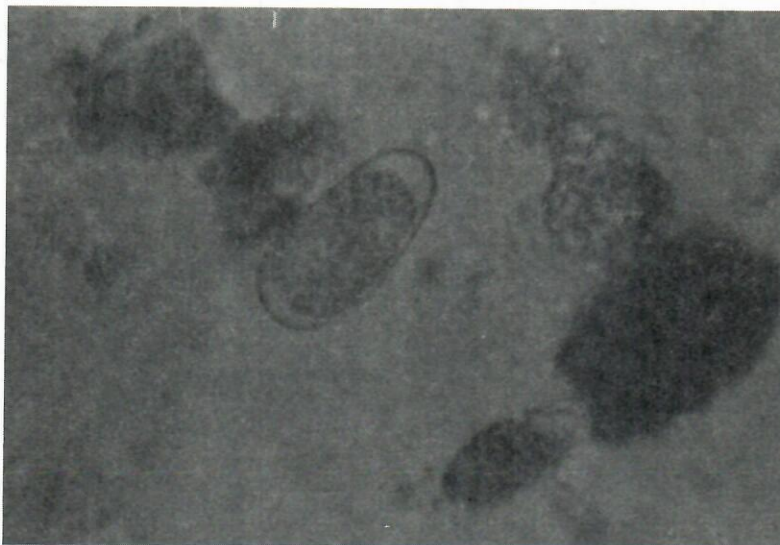


Figure 1. *eimeria guevarai* oocyst

established that the following species were represented: *Eimeria deblicieki*, *E.scabra* and *E.guevarai*.

Eimeria guevarai was discovered in domestic pigs in Spain (Pellerdy, 1974). *E. periminuta* (Donciu, 1961; Boch, Pezenburg and Rosenfeld, 1961; Vetterling, 1965; Shrivastav and Shah, 1968), *E.deblicieki* (Kutzer, 1960; Boch, Pezenburg and Rosenfeld, 1961; Donciu, 1961; Vetterling, 1965; Pastuszko, 1966; Shrivastav and Shah, 1968). *E.polita* (Boch, Pezenburg and Rosenfeld, 1961; Vetterling, 1965; Rommel, 1970). *E.scabra* (Kutzer, 1960; Vetterling, 1965;

Shrivastav and Shah, 1968; Rommel, 1970) and *E. spinosa* (Boch, Pezenburg and Rosenfeld, 1961; Wiesenhutter, 1962; Vetterling, 1965) are distributed throughout the world. Several *Eimeria* species were found in only certain parts of the world, i.e. *E. neodebliecki* and *E. porci* in North America and India (Vetterling, 1965; Shrivastav and Shah, 1968). *E. romaniae* in Romania (Donciu, 1962) and *E. scrofae* in Switzerland (according to Pellerdy, 1976).

Since this is the first finding of *Eimeria guevarai* in Yugoslavia, we present a detailed description of the oocysts we found.

The oocysts of *Eimeria guevarai* are pear-shaped, measuring $30 \times 17 \mu\text{m}$ on average. Their colour is pale pink. The oocyst wall is relatively thin, uniformly about $1.5 \mu\text{m}$ thick, smooth, without a micropylar cap and micropyle. The sporocysts are egg-shaped, containing two sporozoites located longitudinally. There are no residual bodies in the oocysts, nor in the sporocysts.

On the basis of these few data, we are not able to consider the prevalence of *Eimeria guevarai* in our pigs, so it is necessary to carry out more investigation. Therefore, these results could be considered as preliminary.

Since the pathogenicity of *Eimeria guevarai* is not known, we can only presume that it may become important in pigs growing in certain conditions, similar to other coccidia. From that aspect, attempts to eradicate coccidia in wild pigs must include the eventual presence of this species.

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PRVI NALAZ EIMERIA GUEVARAI Rodriguez et Herera, 1971 U JUGOSLAVIJI

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SADRŽAJ

Pregledom fecesa divljih svinja sa Lovnog gazdinstva "Priština" ustanovljene su oociste tri vrste kokcidijske. Sem već poznatih vrsta kod nas (*Eimeria deblickei* i *E. scabra*), po prvi put je determinisana *Eimeria guevarai* Romero Rodriguez et Lizcano Herrera, 1971. Pošto je ovo prvi put nalaz pomenute vrste na ovim prostorima, date su karakteristike njenih oocista.