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CONTRIBUTION TO THE FINDINGS OF EGGS OF ASCARIS SUUM GOEZE, 1782 IN CALVES KEPT IN THE LARGE-SCALE CALF HOUSES

At present, with the industrialization of the individual branches of animal production new problems have arisen — the greatest difficulty being the removal of dung from the large-scale cattle houses and the disposal of the germs of various worm species.

During the coprological examination of 1306 samples of calves kept in the large-scale calf houses in Teplýšovice, the district of Benešov, the germs of 13 endoparasitic species were found in the animals in the course of June 1976—July 1977. Of them, there were 8 coccidian species and 5 helminth species: *Strongyloides papillosus* (Wedl, 1856), *Trichuris ovis* (Abilgaard, 1795), *Cooperia* spp., *Oesophagostomum radiatum* (Rudolphi, 1803) and *Ascaris suum* Goeze, 1782 (Prokopič J., Pavlásek I., Vet. Med., in press). The very interesting and unusual findings of eggs of *Ascaris suum* in 11 calves (EI = 0.84 %) from this large-scale calf house will be reported elsewhere.

For the time being, the findings of eggs of *A. suum* in the calves cannot be explained unambiguously. The whole co-operation district of the large-scale calf houses Teplýšovice consists of about 15 villages with large pigyards including a fattening station of 2,500 pieces of pigs. Dung from these objects is used both for fertilization of fodder plants and as a fertilizer laid under the corn intended for the silage. Because of the fact that these plants are used also as a forage for calves kept in these large-scale calf houses, we assume that the calves are infected by the forage contaminated with the eggs of *A. suum*.

Together with the eggs in the food the invasive eggs — the causative agents of the atypic pneumonia may get to the intestinal tract. This fact has been proved by several authors: e.g. Allen (Can. J. comp. Med. 26: 241—243, 1962) described the acute atypic bovine pneumonia caused by *Ascaris lumbricoides* (= *A. suum*) in 15-year-old cow which was placed in the walk where the pigs had been kept. Natural infection with *A. suum* appeared in the cow 10 days after the contact with the invasive environment. A clinical appearance of the pneumonia corresponds to the experimental results of McCraw and Greenway (Can. J. comp. Med. 34: 247 to 255, 1970), who described the pathological changes during atypic intersticial pneumonia in calves 7—9 days after invasion with the eggs of *A. suum*.

A very interesting and convincing experiment was conducted by McCraw and Lautenslanger (Can. Vet. J. 12: 87—90, 1971) who in October 13, 1969 placed twenty 9—10-month-old calves into the stable where 34 pigs had been kept. These pigs had never been dehelminthisated and had been sold a month before the examinations began. The stable had been neither cleaned nor disinfected. After 7—8 days oc a stay in the stable in all calves the atypis pneumonia appeared. After the next 2 dayg chemotherapy started to be introduced. Durinj the dissection of the calf that died first on October 24, 5,700,000 third-stage larvae of *A. suum* were found in the lungs. Next 6 calves died on November 6. The eggs of *A. suum* were found in 6 of 8 dung samples of calves.

Morrow (J. Am. Vet. Med. Ass. 153: 184—189, 1968) described pneumonia in cattle due to migratory *Ascaris lumbricoides* larvae in the state of New York; Patz (Cent. Afr. J. Med. 5: 399—404, 1959) gave a description of eosinophilic pneumonia caused by *A. suum*. In accordance with the experimental invasion of calves with eggs of *A. suum* mawworms, Greenway and McCraw (Can. J. comp. Med. 34: 227—237, 1970) described a clinical picture of atypic intersticial pneumonia, and the same authors (Can. J. comp. Med. 34: 238—246, 1970) gave a description of eosinophilia in calves during 11—14 days after the invasion with eggs of *A. suum*.

When evaluating our findings in calves kept in the large-scale calf houses, according to the literary data we assume that the eggs of *A. suum* may be under certain conditions harmful and provoke atypic pneumonia in calves.

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