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TITLE
ANTHELMINTIC EFFICACY OF A NEW FENBENDAZOLE NANOSUSPENSION FOR PIGS

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CONTENT
Background and objectives

Worm infections in pigs have an enormous impact on the average daily weight gain, feed conversion and mortality rate, if not well controlled. Ascaris suum is the most important endoparasite worldwide. The larval migration enhances respiratory and enteric infections and provokes white spots on the liver. Furthermore, worm infections negatively influence the immune response after an infection or vaccination. The eggs are massively excreted and the environmental infection pressure can only be significantly lowered by consecutive anthelminthic treatments, based on the prepatent period of 6 weeks. The efficacy of a new easy to use fenbendazole nanosuspension (Pigfen® 200 mg/ ml oral suspension) against adult and larval stages of Ascaris suum was investigated.

Material & methods

Weaned pigs (n=100), shown to be negative for worms before challenge, were artificially infected for 3 consecutive days with approximately 150 Ascaris suum eggs per day at the start of the study. Counts of L4 larvae, L5 larvae and adult worms were performed on an equal amount of treated and control pigs. Pigfen® 200 mg/ ml oral suspension was administered at 2.5 mg fenbendazole/ kg bodyweight/ day for 2 consecutive days in the drinking water on day 7-8, 14-15 or 44-45. Six days after the end of the treatment, necropsies were performed to count respectively the L4 larvae, L5 larvae and adult worms in the small intestines or lungs. The percentage reduction, based upon geometric means, was determined.

Results

Counts of adult worms, L4 and L5 larval stages showed a reduction of 100 %, 99.3 % and 100 % respectively in the treated groups.

Discussion & conclusion

This study confirmed the excellent efficacy of Pigfen® 200 mg/ ml nanosuspension at a target daily dose of 2.5 mg fenbendazole/ kg bodyweight for 2 consecutive days against adult and development stages of Ascaris suum.