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PHARMACOKINETIC BEHAVIOR OF PAROFOR® 70 MG/G WSP POST ORAL ADMINISTRATION

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Introduction

The objective of this study was to measure the concentrations of paromomycin (PRM) (the active ingredient of Parofor® 70mg/g WSP) in the gastrointestinal tract, during and after ending oral treatment.

Materials and Methods

Sixty pigs (Danube white) of both sexes (7.74-11.4 kg), 4-5 weeks of age, were used. On day 0 of the trial, the pigs were treated via drinking water with 25 mg PRM /kg/bodyweight (bw) as Parofor® 70 mg/g WSP for 5 consecutive days. The evolution of concentrations of PRM was assessed applying HPLC determination in plasma and intestinal contents of pigs.

Results

The concentrations of PRM in the contents of small and large intestine on day 5 of the treatment, 24 hours and 48 hours after the end of the treatment were respectively 760.3 and 640.5 µg/g; 16.7 and 71 µg/g; 0.8 and 7.2 µg/g. The concentrations of PRM in the contents of small and large intestines on 72 hour after the end of the treatment were <LOQ (0,25 µg/g). The PRM concentrations in plasma during the treatment, 24 and 48 hours after the end of the treatment were <LOQ (50 ng/mL).

Conclusions and Discussion

The results from the study show that after oral administration of Parofor® 70 mg/g WSP at 25 mg/kg/bw, PRM concentrates in small and large intestines, giving therapeutic concentrations for at least 48 hours after end of treatment.

These data help for better interpretation of *in vitro* susceptibility testing and in designing of efficient medication strategies.