

EFFICACY OF AN AMOXYCILLIN 5% PREMIX ADMINISTERED IN FEED TO CONTROL THE INFECTION OF *S. SUIIS* CONTROLLING THE PATHOLOGY, REDUCING THE MORBIDITY AND THE MORTALITY IN PIGLETS EXPERIMENTALLY INFECTED WITH *S. SUIIS*, AFTER THE WEANING

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Introduction

The aim of this study was to evaluate the effectiveness in reducing the mortality and morbidity in piglets infected experimentally with *Streptococcus suis*, of a new protected pharmaceutical form (GLOBULIT[®] technologies) of amoxicillin 5% premix* administered in feed

Materials and Methodos

Animals: the weaned piglets were inoculated and treated in the experimental farm.

Experimental infection: inoculum of *S. suis* serotype was inoculated intravenously containing a dose of 10⁸ cfu/animal (1). The *S.suis* strain inoculated corresponded to 425/00 strain, MRP+EF+Sly+ phenotype, isolated from the brain of animals with nervous processes.

Experiment design: Double blind study, randomised, controlled, and parallel. Three groups containing 10 piglets each one were constituted at random Control group not infected and fed with a non medicated commercial feed. Two infected groups, Group of *Treatment 1:* treated with amoxicillin 5%* in feed and the other Group of *Treatment 2:* fed with a non medicated feed .

The dose of administered was 6 kg per ton of starter feed in meal form (300 ppm), which achieved the dose of 15 mg of amoxicillin per Kg bodyweight per day that is the indicated dose for the administration of amoxicillin by feed. The treatment was performed during 15 days after the weaning.

The efficacy of treatment was evaluated by measuring the clinical signs, lesions, mortality and corporal temperature.

Results

Clinical signs: Neither the group treated nor neither the non-inoculated control group showed any type of clinical sign during all the study period. On the contrary, all the animals of the inoculated and non-treated group showed a clinical reaction with slight to severe intensity the following day after the inoculation of *S.suis* (day 7) and during a week period approximately.

Lesions:

Table 1 Lesion and isolation of *S suis* from the lesions

	Control	Group 1	Group 2
AP Lesions	1	0	7
SS Isolation	0	0	4

AP lesions: Anatomopathological lesions related to *S suis*

SS Isolation: Bacteriologic isolation of *S suis*

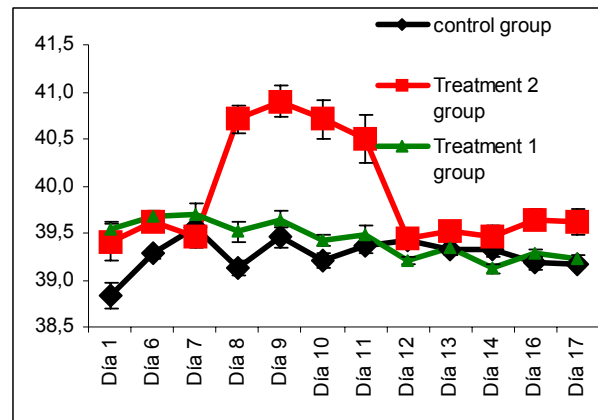


Figure 2 Mean temperatures of the three groups (vertical lines show standard deviation)

Mortality: One animal from the inoculated and non-treated group, showed lesions (incoordination, paralysis, convulsions, opisthotonos, severe lameness, severe anorexia), on the sixth day after the inoculation of *S suis*. It was sacrificed for animal welfare reasons; it can be assumed that the animal would have died in case of not being sacrificed. This animal showed the typical lesions of *S.suis* infection and this bacteria was isolated from the lesions

There weren't mortalities in the animals of the non-inoculated and non-treated group (control group), neither the animals treated with amoxicillin 5% premix (treatment 1 group).

Discussion

Results obtained in this study demonstrate that this new protected technologies of principle active (GLOBULIT[®]) ensure the concentration of amoxicillin 5% premix in feed given at a level equivalent to the dosage of 15 mg of amoxicillin per bodyweight per day during 15 days to already weaning pigs experimentally infected with *S suis*, is capable of controlling the illness by reducing the mortality, the morbidity and the lesions of the weaning pigs treated with this product.

New design of this product assures the protection of the active substance that guarantees the adequate administration of required dosage in treated pigs.

References

1. Galina, L. et al. (1994). Vet. Rec. 15; 134(3): 60-4

Body Temperature:

