



VIRAL DISEASES

VVD-003

PRESENCE OF ROTAVIRUS TYPE C IN NEONATAL DIARRHEA. PRELIMINARY RESULTS

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Introduction

Rotavirus is a major cause of diarrhea in piglets. Rotavirus type A is the most prevalent, but other rotavirus types have been described. Rotavirus type C is the second in prevalence but its implication in digestive process could be underestimated. The objective of this study was evaluating the presence of Rotavirus type C in neonatal diarrhea on commercial pig farms in Spain.

Material & Methods

A qPCR assay to detect Rotavirus type C (targeting VP6 gen) has been designed. 83 cases from piglets younger than 15 days with diarrhea were evaluated. Feces, intestines or rectal swabs were individually or in pool analyzed. Rotavirus type A was also tested with a commercial qPCR (ExoOne).

Results

Rotavirus type C was detected in 39.8% (33/83) of cases, in 10 of 16 Spanish provinces evaluated. Rotavirus type A was detected in the 59.0% of cases and in 21.7% (18/83) there were a co-infection of Rotavirus A with Rotavirus C. Rotavirus C concentration was higher than Rotavirus A in 10 cases of co-infection and had similar concentration in the other 8 cases. Besides 18.1% of cases were positive to Rotavirus C and not to Rotavirus A.

There was a difference regarding the sample: 48.6% of intestine and 44.0% of rectal swabs were positive to Rotavirus C contrasting 19.0% of feces positive samples. No differences between individual vs. pool processing have been founded.

Discussion & Conclusion

This preliminary study shows the relevant presence of Rotavirus type C in neonatal diarrhea cases on commercial farms in Spain. These results were similar to previously reported in other countries. The kind of sample could affect the diagnostic sensitivity: intestines or fecal swab show a higher proportion of positive Rotavirus C results than feces.

In conclusion Rotavirus type C should be included in the differential diagnosis of neonatal diarrhea.