RES-OP-05

TITLE

CASE OF LISTERIOSIS IN FATTENING PIGS WITH HEMORRHAGIC DIARRHEA AND SUDDEN DEATH

Heiko Stein^{1,2}, Beatrix Stessl³, Rene Brunthaler⁴, Igor Loncaric⁵, Herbert Weissenböck⁵, Ursula Ruczizka¹, Andrea Ladinig¹, Lukas Schwarz¹

¹ University Clinic for Swine, Department of Farm Animals and Veterinary Public Health, University of Veterinary Medicine Vienna, Austria

² Vetpraxis Hegerberg, Kasten, Austria

³ Institute of Milk Hygiene, Milk Technology and Food Science, Department of Farm Animals and Veterinary Public Health, University of Veterinary Medicine, Vienna, Austria.

⁴ Institute of Pathology, Department of Pathobiology, University of Veterinary Medicine, Vienna, Austria. ⁵ Institute of Microbiology, Department of Pathobiology, University of Veterinary Medicine, Vienna, Austria.

CONTENT

Background and Objectives

Listeriosis in swine is mainly found in suckling piglets with septicaemia. In sows, listeriosis may result in abortion and in suckling piglets rarely in encephalitis. This case report highlights Listeria (L.) monocytogenes as a clinically relevant pathogen causing haemorrhagic enteritis and septicaemia in fattening pigs of swine farm.

Material & Methods

In a farrow-to-finish farm, an episode of bloody diarrhoea with a mortality rate of 7.8% was observed in fattening pigs (40-100 kg bodyweight). The herd veterinarian decided to send two characteristically sick fatteners and maize silage to the University Clinic for Swine for further diagnostics. Silage was produced under inappropriate conditions, since it was contaminated with mould and 3000ppb deoxynivalenol. Necropsy, histopathological and bacteriological investigations were performed on the two pigs to find out the causative agent of haemorrhagic enteritis and peracute deaths in the farm.

Results

In both pigs necropsy showed a severe diffuse fibrinonecrotic typhlocolitis and L. monocytogenes could be isolated from both serosa samples and in the silage sample. L. monocytogenes was detected in high amount in the gut associated lymphatic tissue by immunohistochemistry. Furthermore, molecular epidemiological analysis resulted in identical sequence types of ST21. The ST21 isolates were susceptible to a broad range of antimicrobials.

Consequently, antimicrobial therapy using amoxicillin led to a fast recovery of residual affected fatteners.

Discussion and Conclusion

Since listeriosis in pigs is a rarely diagnosed disease, clinical symptoms of pigs in this case were initially assumed to be a case of swine dysentery. Swine practitioners usually do not consider listeriosis in pigs. Hence, this case report highlights the importance of adequate diagnostics in order to start an appropriate therapy to prevent further deaths.

To conclude, L. monocytogenes can cause clinical disease in fattening pigs transmitted via silage resulting in bloody diarrhoea and an increased mortality rate.