



BACTERIAL DISEASES

BBD-062

PREVALENCE OF VT2E IN PIGS: SYSTEMATIC LITERATURE REVIEW

A. Sánchez-Matamoros, I. Galé.

HIPRA, Amer (Girona), Spain.

Introduction

Reliable data on the worldwide presence of verotoxigenic strains of *Escherichia coli* (VTEC) producing verotoxin-2e (Vt2e) could explain the overall prevalence of swine oedema which causes a deleterious economic impact in the swine industry. Therefore, a systematic literature review on the prevalence of Vt2e was considered appropriate.

Material & Methods

Thirty-eight studies published between 1995 and 2016 assessing the prevalence of VTEC and the VT2e gene in the swine industry, obtained from databases and reference lists, were analysed.

Results

The data analysed came from experimental protocols and clinical evaluations using samples taken from healthy and diarrheic pigs in farms and from pig slaughterhouses in Europe, America, Africa and Asia. The prevalence of Vt2e gene was assessed in 28 papers. One described that 31% (rectal swabs) and 23.7% (faecal samples) of healthy pigs were positive for Vt2e gene in Belgian farms and slaughterhouses, respectively. The remaining 27 manuscripts described the prevalence of Vt2e in VTEC isolates from healthy animals, which was 30% and 72% in Asia and South America, respectively, but exceeded 72% in Europe and North America. This review also showed that the prevalence of Vt2e was lower in diarrheic animals.

Discussion & Conclusion

Only one study specifically assessing the prevalence of the Vt2e gene in pig farms was found in this literature review. Thus, the prevalence of Vt2e was determined based on the high percentage of Vt2e gene in VTEC isolates from healthy pigs in Europe and North America. Additionally, differences in study designs and laboratory tests complicated this comparison both within and between countries. Based on these results, studies on the prevalence and role of this bacterium in pig population worldwide are required.

Acknowledgment

The authors express their gratitude to L. Calpe for her support in this literature review.