



REP-006

INTEREST OF QPCR FOR THE CONTROL OF *MYCOPLASMA SUIS* INFECTION: A FRENCH CASE STUDY

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Objective

Mycoplasma suis (Ms) is endemic in pig herds. It affects all physiological stages and causes infectious anemia.

The aim of this present study was to investigate Ms infection in swine herd using quantitative PCR test.

Materials and methods

A 1000 sows breeding herd was included because of evocative clinical signs of MS infection at farrowing (fever, vaginal discharges, dysgalactia and neonatal diarrhea). Before inclusion, the farm was PRRSV, *Mycoplasma hyopneumoniae* and *Leptospira* negative.

Forty gilts and parity 2 and 3 sows were blood sampled one week before farrowing in order to diagnose Ms infection using qPCR before (N=20), and after the implementation of control measures (N=20). Analytical and technical results were monitored on 5 treated (TB) and 5 not treated batches (NTB) representing respectively 431 and 446 sows.

Results

All the samples were Ms qPCR positive before treatment. Contamination level ranged from 1.1 10⁶ to 6.3 10⁸ copies per ml of total blood.

Doxycycline (12.5mg/ kg of body weight) was administered *per os* to the sows during 2 weeks from 93 to 107 days of gestation. The farmer was recommended to use one needle per sow and to improve the hygiene level of all injection materials. 18 out of 20 samples after treatment returned Ms negative. 2/20 were weakly positive, below the quantification limit. At the same time, the percentage of losses on born alive piglets dropped sharply (from 15.5% in NTB to 11.7% in TB). We did not see any difference in percentage of mortinatality (8.4% and 8.6% respectively).

Conclusion

Clinical importance of Ms is still questionable. In this study, qPCR was used for successful detection in a sow herd and evaluation of the control measures efficacy. This new diagnostic tool could help practitioners to investigate different aspects of Ms infection in pig herds. Further investigations are ongoing.

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