

Technical University of Denmark



Novel Mycoplasma hyosynoviae vaccination of one herd failed to prevent lameness in finishing pigs

Lauritsen, Klara Tølbøl; Nielsen, Elisabeth Okholm ; Christensen, Dennis; Jungersen, Gregers

Publication date:
2013

Document Version
Early version, also known as pre-print

[Link back to DTU Orbit](#)

Citation (APA):

Lauritsen, K. T., Nielsen, E. O., Christensen, D., & Jungersen, G. (2013). Novel Mycoplasma hyosynoviae vaccination of one herd failed to prevent lameness in finishing pigs. Abstract from 5th European Symposium of Porcine Health Management (ESPHM 2012), Edinburgh, United Kingdom.

DTU Library

Technical Information Center of Denmark

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Novel *Mycoplasma hyosynoviae* vaccination of one herd failed to prevent lameness in finishing pigs

Klara Tølbøll Lauritsen¹, Elisabeth Okholm Nielsen², Dennis Christensen³ and Gregers Jungersen¹

¹National Veterinary Institute, Technical University of Denmark, ²Pig Research Centre, Danish Agriculture & Food Council, Denmark, ³Statens Serum Institut, Denmark

Keywords: , vaccine, lameness, pig

Infection with *Mycoplasma hyosynoviae* (*M. hyosynoviae*) is a known cause of arthritis and lameness in finishing pigs. Although antibiotic therapy will cure many cases, other ways of preventing *M. hyosynoviae* arthritis are warranted. The National Veterinary Institute has recently developed a *M. hyosynoviae* vaccine formulated with formalin-fixed whole-cell *M. hyosynoviae* and CAF01 (Statens Serum Institut, Denmark) as an adjuvant. This vaccine has recently shown promising results in experimentally infected pigs with development of both humoral and cell-mediated immune responses. The objective was to test this novel vaccine in a field trial in one Danish herd with recurrent arthritis problems due to infection with *M. hyosynoviae*. A total of 399 weaner pigs were included in a clinical trial. The pigs were vaccinated twice, two and five weeks after weaning. Half of the pigs were vaccinated with the novel *M. hyosynoviae* vaccine, and the other half were placebo injected (adjuvant + buffered saline). Two ml doses of both were injected intramuscularly in the neck. Vaccinated pigs and placebo pigs were mixed in the pens. There were no cases of lameness until the pigs were moved to the finishing unit at a bodyweight of 30 kg. In the finishing unit, arthritis due to infection with *M. hyosynoviae* was diagnosed by culture before and during the vaccine trial. Lameness was recorded in 23% of the vaccinated pigs and in 28% of the placebo pigs. The data were analysed by logistic regression, and no significant difference in the prevalence of lameness was found ($P=0.157$). All lame finishers were treated with Lincosin[®] and Flunixin[®] by injection for three days. In conclusion, this novel *M. hyosynoviae* vaccine could not successfully prevent the development of lameness in finishing pigs presumed to have been caused by *M. hyosynoviae* arthritis.