

## **BBD-PP-12**

### **TITLE**

CASE REPORT: AN OUTBREAK OF FIBRINO-HEMORRHAGIC AND NECROTIZING PLEUROPNEUMONIA DUE TO PASTEURELLA MULTOCIDA IN A FATTENING BREEDING FARM

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### **CONTENT**

#### Background and Objectives

Respiratory diseases cause important economic losses in pig farms and *Pasteurella multocida* is one of most commonly isolated agent from pulmonary lesions in pigs. Generally *P. multocida* is considered a secondary opportunistic agent of enzootic pneumonia, but in addition it can cause fibrino-hemorrhagic and necrotizing pleuropneumonia (*A. pleuropneumoniae*-like lesions). This case report describes the anatomo-pathological presentation and the investigation performed in 3 pigs with fibrino-hemorrhagic and necrotizing pleuropneumonia.

#### Material & Methods

In August 2017 an outbreak of a respiratory disease was observed in a fattening farm (1870 pigs), located in Northern Italy, and involved pigs from 40 kg BW until the slaughter weight. The main clinical sign was cough with 100% of morbidity. Three pigs dead with respiratory symptoms were sent to the IZSLER lab (Reggio Emilia) for diagnostic investigations (necropsy, gross lesions evaluation, bacteriology and histopathology and PCRs for PRRSV and SIV).

#### Results

At necropsy fibrino-hemorrhagic and necrotizing pleuropneumonia was observed and *Pasteurella multocida* strains were isolated from all lungs. The strains were characterized by multiplex PCR to detect capsular type and virulence factors. *P. multocida* capA, positive for filamentous haemoagglutinin (pfhA+) was detected. PCRs for PRRSV and SIV resulted negative.

Histopathology showed a fibrino-hemorrhagic and necrotizing pleuropneumonia with hyperemia, edema and abundant necrotic cell debris with "oat cells" in the alveoli.

#### Discussion & Conclusion

The present case report describes an outbreak of fibrino-hemorrhagic and necrotizing pleuropneumonia due to *P. multocida* in a fattening breeding farm. As described in other studies *P. multocida* capA strains are most frequently involved in respiratory disease, while pfhA is related to the pathogenicity of *P. multocida*, with some strains associated to *A. pleuropneumoniae*-like lesions. The different outcome of *P. multocida* infection may indicate possible genetic and virulence differences between isolates, suggesting the need of further investigations about this subject.