

Letter to the editor

**MYCOPLASMA DETECTION IN SWINE WITH RESPIRATORY DISEASE  
IN CUBA**

Dear editor:

In the last years, the Porcine Respiratory Disease Complex (PRDC) has become a serious problem in most of pig producing countries, leading to big economic losses. Mycoplasmas play an important role among the various agents involved in the PRDC. *Mycoplasma hyopneumoniae* is the etiologic agent of Enzootic Pneumonia and it is considered the most economically significant bacterial respiratory pathogen. However, it has been reported that *M. hyopneumoniae* may not be the only important mycoplasma pathogen of the respiratory tract of swine. *M. hyorhinis* and *M. hyosynoviae*, common inhabitants of the nasal cavity and pharynx of pigs can cause disease in swine. *M. flocculare*, which is recognized as a non pathogen agent of the lung and nasal cavities of pigs, has been isolated from pneumonic lungs. Other species of questionable pathogenicity, like *M. suis*, *M. hyopharyngis* and several species of Acholeplasmas are found in the respiratory tract of swine and some of them have been reported causing pneumonia, for example, *Acholeplasma laidlawii*.

The circulation of *M. hyopneumoniae* and *M. hyorhinis* associated to respiratory disease in the western and central region of Cuba has been reported. The aim of the present study was to determine the presence of this pathogen agents in the eastern region, and the presence of *M. flocculare* and other *Mollicutes* in clinical samples of swine with respiratory disease. A total of 58 clinical samples from 7 provinces including the western, central and eastern region of Cuba was analyzed. The samples, which included 16 nasal exudates, 30 swabs and 12 intrabronchiolar mucus from lungs with typical lesions of enzootic pneumonia, were analyzed by a *Mollicutes* specific PCR. Positive samples were subsequently analyzed by independent PCR assays for *M. hyopneumoniae*, *M. hyorhinis* and *M. flocculare* detection.

As a result, 39 samples (67%) were positive to *Mollicutes* infection. From them, the 17% (7 samples) was positive to *M. hyopneumoniae*, 12% (5 samples) to *M. hyorhinis* and 10% (4 samples) to *M. flocculare*. *M. hyopneumoniae* and *M. flocculare* were detected co-infecting one sample. In the remaining 24 samples, (61%), none of the previously mentioned species was detected. *M. hyopneumoniae* was only identified in two provinces of the western region of the country, while *M. hyorhinis* and *M. flocculare* were detected in the central and eastern region. Unidentified *Mollicutes* species were detected in the clinical samples of 6 of the 7 provinces analyzed.

These results prove the circulation of *M. hyorhinis* in the eastern region of Cuba. Although *M. hyopneumoniae* was not detected in such region it is advisable to amplify the study in a major number of samples since the number of samples analyzed from this region was very small. Also, a high number of clinical samples infected with *Mollicutes* species different from the commonly reported pathogens points out the importance of identifying mycoplasma species present in a respiratory disease outbreak, studying their contribution or association with the etiological agents involved in the development of the PRDC.

**Yaima Burgher, Evelyn Lobo**

Laboratory for mycoplasma diagnosis, MYCOLAB. National Center for Animal and Plant Health (CENSA). E-mail: yaima@censa.edu.cu