

BACTERIAL CULTURE OF TRACHEAL ASPIRATE OR LUNG TISSUE OF 76 FOALS PRESENTED WITH CLINICAL SIGNS OF PNEUMONIA

Zoé Neuckermans, Ellen Paulussen, Alexander Dufourni, Laurence Lefère, Gunther van Loon

Department of Large Animal Internal Medicine, Ghent University, Merelbeke, Belgium

Streptococcus equi subsp. *zooepidemicus* (Strep-zoo) and *Rhodococcus equi* (*R.equi*) are the most common bacterial isolates in foals with pneumonia during the first months of life, but little is reported about their relative frequency of occurrence. The aim of this retrospective study was to discuss the results of bacterial culture of tracheobronchial aspirates or lung tissue (necropsy) of foals presented with clinical signs of pneumonia including depression, fever, cough, nasal discharge and dyspnoea. Bacterial culture issued from 76 foals aged between 0 and 365 days presented between January 2009 and December 2018 at our referral hospital were reviewed. Strep-zoo and *R.equi* were isolated in 35.5 % (27/76) and 22.4% (17/76), respectively. Two samples were positive for both pathogens. Other bacterial isolates were *Actinobacillus spp.* (n=5), *Pseudomonas spp.* (n=3), *E.Coli* (n=2), *Klebsiella spp.* (n=1), *Bordetella spp.* (n=1), *Staphylococcus spp.* (n=1) and *Streptococcus equi subsp. equi* (n=1). Survival to discharge was higher in the Strep-zoo group (81.5%, 22/27) compared to the *R.equi* group (64.7%, 11/17). Foals with Strep-zoo infection were older (mean 129 days) compared to those with *R.equi* (mean 59 days). Lung abscesses were found on ultrasound in 37% (10/27) of the Strep-zoo cases and in 76% (13/17) of the *R.equi* cases. In conclusion, in our hospital population Strep-zoo was more prevalent than *R.equi*. Age and abscess formation might be suggestive for the causative pathogen. However, proper diagnosis by bacterial culture is essential to avoid unnecessary use of critical antibiotics and to better define prognosis.

Key words: equine; bacterial isolates; *Streptococcus zooepidemicus*; *Rhodococcus equi*.