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Hemorrhagic pneumonia can be a major cause of mortality in farmed mink in the fall. In its classic form, hemorrhagic pneumonia is caused by the bacterium *Pseudomonas aeruginosa*. In recent years, however, outbreaks of this type of pneumonia that are associated with hemolytic *Escherichia coli* have also occurred in farmed mink. The purpose of this study was to compare histological lesions of acute hemorrhagic pneumonia associated with both *P. aeruginosa* and *E. coli* in mink, including a description of tissue distribution of pathogens, in an attempt to differentiate between the 2 disease entities based on histopathology. The study included material submitted for diagnostic investigation to the National Veterinary Institute in Denmark from 2006 to 2009. Altogether, 19 cases of hemorrhagic pneumonia with a pure lung culture of *P. aeruginosa* and 18 cases of hemorrhagic pneumonia with a pure lung culture of *E. coli* were examined. Formalin-fixed paraffin-embedded lung tissue obtained from the mink was examined by histology and fluorescence in-situ hybridization (FISH). It was possible to detect a slight histological difference between hemorrhagic pneumonia caused by *P. aeruginosa* and by *E. coli*, as *P. aeruginosa* was most often found surrounding blood vessels and lining the alveoli, while *E. coli* showed a more diffuse distribution in the lung tissue. Furthermore, *P. aeruginosa* often elicited a very hemorrhagic response in the lung, while infection with *E. coli* was associated with a higher frequency of alveolar edema and mild lymphoid cuffing in the lungs.

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