

Original article

The influence of experimental *Yersinia enterocolitica* infection on the pregnancy course in sows – preliminary studies. III. Histopathological lesions

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Abstract

The aim of the study was to evaluate the anatomo- and histopathological lesions in internal organs of sows and their stillborn piglets after experimental *Y. enterocolitica* infection in different phases of pregnancy.

Twelve pregnant sows were divided into 4 groups, infected *per os* on 33 (n=3), 54 (n=3) and 89 (n=3) day of pregnancy with the pathogenic *Y. enterocolitica* strain isolated from the aborted swine fetus, and uninfected control group. Histopathological examinations of internal organs and intestine samples of stillborn piglets, slaughtered sows and samples of placentas were performed.

Anatomo- and histopathological lesions were the most intense in the group of sows infected in the final phase of pregnancy, where the highest number of stillborn piglets was also found. Lesions of internal organs in stillborn piglets suggested a severe generalized bacterial infection. Although the analysis of experimental *Y. enterocolitica* infection of pregnant sows revealed that the most intense clinical, anatomopathological and histopathological abnormalities were recorded in the group of animals infected in the final phase of pregnancy. Infection in the first phase of pregnancy could have had an influence on the formation of the granulomatous inflammation. Differences in anatomopathological lesions between infected and control animals suggest that the period of pregnancy in which the infection appears could have had an influence on the course of yersiniosis in pigs.

Key words: *Yersinia enterocolitica*, challenge, sow, pregnancy, histopathology