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TITLE
UMBILICAL INFECTIONS IN PIGLETS AS A PORTAL OF ENTRY FOR SYSTEMIC INFECTION

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CONTENT
The aim of the study was to isolate and identify bacteria in pure culture from the umbilicus of piglets, and to elucidate if similar bacteria were present in other tissues/organs as a sign of septicemia.
From each of two Danish sow herds (no. 1 and 2), 15 non-antimicrobial treated piglets, either dead within the first days of life or euthanized within the second to third week of life were selected. Pigs with gross abnormalities in the umbilical region or other signs of infectious disease were selected.
All piglets (n=30) were subjected to a complete necropsy followed by bacterial cultivation of swaps from the umbilicus (skin flamed, incision placed lateral to the umbilicus), left elbow joint cavity, meninges, abdominal cavity, liver and spleen.
In herd no. 1, the examined pigs were from one to eight days of age. By cultivation of the umbilicus, Eschericia coli (E.coli), a mixed culture and Aerococcus viridans (A.viridans) was isolated in five, four and three pigs, respectively. Remaining samples either were sterile or contained unspecific enterococci. In two pigs with umbilical E.coli, this bacterium was also isolated from other areas such as joint, abdomen and meninges. In one pig, A. viridans, was isolated from the umbilicus and the abdominal cavity.
In herd no. 2, pigs were one to 21 days of age. By cultivation of the umbilicus, E.coli was isolated in two pigs. Remaining samples either were sterile, with ?-haemolytic streptococci or were contaminated. In the pigs with umbilical E.coli, this bacterium was also isolated from the joint cavity, meninges, abdominal cavity, liver and spleen.
This study demonstrates that umbilical infection in piglets may be an entry for septicemia.
This result is useful for septicemia intervention programs in young pigs. We can only speculate whether the infection plays a role in development of umbilical hernia.