

BACTERIAL CONTAMINATION OF THE UTERUS IN DIFFERENT LACTATION COWS ON ENDOMETRITIS

Jūratė Šiugzdaitė, Vilmantas Juodžentis, Saulius Petkevičius

Department of Infectious Diseases, Veterinary Academy, Lithuanian University of Health Sciences

Tilžės 18, LT-47181, Kaunas, Lithuania; Tel. +370 36 23 92; e-mail: jurate.saugzdaite@lva.lt

Summary. Bacteria play an important role in the pathogenesis of endometritis in cows. The aim of the present investigation was to determine the bacteria from the uteri of different lactation cows on endometritis. In total, forty seven secretion samples from the uteri of the 1st to 5th lactation cows were investigated. Samples for microbiological analysis were collected with sterile catheters from uterine cervix of dairy cows of different lactation. Bacteria were identified according to biochemical and antigenic properties. The Kirby Bauer method was used to determine susceptibility of the pathogenic isolated bacteria to antimicrobial substances.

Bacteria were isolated in 39 (83.0 percent) cow's uterine secretion samples (from 47 investigated samples). The pure culture was determined in 18 (38.30 percent) samples, two types of bacteria (mixed culture) were identified in 16 (34.04 percent) samples, and three types in 5 (10.64 percent) samples. The results revealed that environmental bacteria were the most common isolates from cases of endometritis in the examined cows: *Enterococcus faecalis* (36.2 %), *Streptococcus uberis* (19.1 %) and *Escherichia coli* (44.7 %).

Fourteen cows had retained placenta (29.79 %) in the first postpartum week. The main agent *Escherichia coli* was isolated in 92.8 % ($p < 0.01$) of cows. Statistical analysis showed that isolation of *Escherichia coli* influenced the development of endometritis and the difference in lactation influenced the retention of placenta ($p < 0.03$).

Gram-positive and Gram-negative bacteria strains isolated from the uteri of different lactation cows on endometritis were most sensitive to amoxicillin with clavulanic acid.

Keywords: cows, bacteria, endometritis, different lactation.