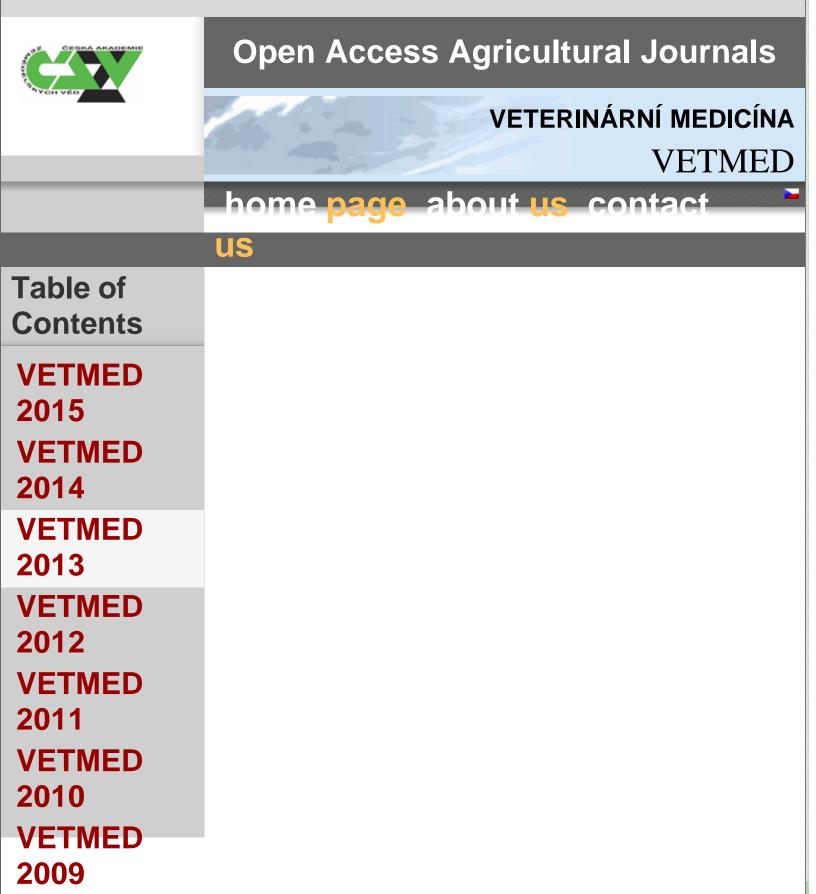
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Veterinarni Medicina

Prevalence of mastitis pathogens in milk from clinically healthy cows

Cervinkova D, Vlkova H, Borodacova I, Makovcova J, Babak V, Lorencova A, Vrtkova I, Marosevic D, Jaglic Z:

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[fulltext]

A total of 669 individual cow milk samples originating from asymptomatic cows from 16 dairy farms were examined for the presence of microorganisms with the potential to cause mastitis. Coagulasenegative staphylococci clearly predominated (53.5% positive samples) followed by streptococci and enterococci (both occurring in 16.1% samples). Among streptococci, so-called mastitis streptococci (S. uberis, S. dysgalactiae and S. agalactiae) prevailed (11.7% positive samples). *Enterobacteriaceae* were found in 10.0% samples, most of which (6.6% samples) were positive for Escherichia coli. Yeasts (mainly Candida spp.) were found in 8.2% samples. One

of the major mastitis pathogens, Staphylococcus aureus subsp. aureus, was isolated from 9.0% of samples. S. aureus isolates were further characterised in terms of their capability to form biofilm, antimicrobial susceptibility and clonality (PFGE). All S. aureus isolates were capable of biofilm formation and were generally susceptible to the majority of tested antibiotics. The exception was ampicillin, resistance to which was observed in 27.7% isolates. Therefore, the relatively frequent occurrence of S. aureus could be attributed to persistent intramammary infections due to biofilm formation rather than low efficacy of particular antibiotics. PFGE analysis revealed clonal spread of certain S. aureus isolates within and between farms indicating that certain lineages of S. aureus mastitis strains are particularly successful.

Keywords:

mastitis; bovine; intramammary; IMI; etiology; epidemiology; macrorestriction [fulltext]

