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Veterinarni Medicina

Prevalence of *Listeria monocytogenes* in milk, meat and foodstuff of animal origin and the phenotype of antibiotic resistance of isolated strains

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[fulltext]

In 2000–2002 samples of raw materials (milk and beef, 518 samples), ready-to-cook foods and final products from milk (30 and 200 samples) and from meat (105 and 110 samples) and swabs from surfaces in two meat-processing plants (41 samples) were examined for the presence of *Listeria monocytogenes* (*L. monocytogenes*). 70 isolates were tested using the standard microdilution method for the susceptibility to 12 antimicrobial drugs, minimum inhibitory concentration (MIC) characteristics (MIC_m, MIC₅₀,

 MIC_{90}) were determined. L.

monocytogenes was isolated from raw

milk samples (15 samples). It was not isolated from any of the semi-finished and final milk products except for one sample of pasteurized milk. Furthermore L. monocytogenes was isolated from samples of raw beef, meat emulsion, fermented dry meat products and from swabs from production equipment. In vitro testing of susceptibility showed the considerable effectiveness of examined antimicrobial substances with streptomycin and norfloxacin being least effective (MIC_m = 4 μ g/ml). Apart from the intermediate resistance (MIC = 1-2 μ g/ml) and resistance (MIC = 4 μ g/ml) to clindamycin (37 and 5 strains, respectively), all strains were susceptible to the tested substances. While the presence of *L. monocytogenes* in foodstuffs, in particular, are serious, current tests of susceptibility of L. monocytogenes isolates indicate low probability untreatable infections as a result of resistant strains from foods or transfer of resistance to other microorganisms in the CzechRepublic.

Keywords:

pathogenic bacteria; acquired resistance; food safety

[fulltext]

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