

FLUOROQUINOLONE RESISTANCE OF COMMENSAL *ESCHERICHIA COLI* ISOLATED FROM BROILERS

V. Kmet¹, M. Kmetova², Z. Drugdova¹

¹*Institute of Animal Physiology, Slovak Academy of Sciences,* ²*Institute of Medical Microbiology and Clinical Microbiology, P. J. Safarik University, Faculty of Medicine, Kosice, Slovak Republic*

Objectives: Fluoroquinolone resistance in animal intestinal commensals represents a specific public health hazard. Enrofloxacin is the most used drug for therapeutic applications in poultry. Fluoroquinolone resistance in veterinary and food isolates *E. coli* was reported by Giraud et al. (2001), Guerra et al. (2003), Taylor et al. (2008) and Kmet et Kmetova (2010, Slovak Antimicrobial Resistance Veterinary Database, www2.saske.sk/atbres).

Methods: The aim of study was to characterise the occurrence of enrofloxacin resistance and ESBLs in 210 strains of *Escherichia coli*, from imported and slovak broilers (faeces and meat). Antibiotic resistance was determined according to CLSI, M31-A3 (2008) and ESBLs confirmed by Check-Points MDR CT101 kit. Clonal relatedness of selected isolates was determined by Maldi analysis.

Results: Enrofloxacin resistant *Escherichia coli* (59%) showed high occurrence of betalactam resistance: ampicillin 89%, ampicillin with sulbactam 8,3%, ceftiofur 25%, cefquinome 6%, also. ESBLs were detected in 6% of *Escherichia coli* isolates. Check-Points analysis revealed the presence CMY-2, TEM1 genes and CTX-M1 group. Gene *qnrS* was detected by PCR only in one strain with high level of enrofloxacin resistance. Analysis of ribosomal proteins by Maldi biotyper showed the relatedness between some isolates from meat and faeces.

Conclusions: The results confirmed that the broilers could constitute a reservoir of fluoroquinolone resistant bacteria with ESBLs for human population.

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