THE EVALUATION OF TETRACYCLINE RESISTANCE IN ESPHERICHA COLI ISOLATED FROM POULTRY MEAT

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ABSTRACT
Antimicrobial drugs have played an indispensable role in decreasing illness and death associated with infectious diseases in animals and humans. However, selective pressure exerted by antimicrobial drug use also has been involved in the emergence and spread of drug-resistance traits among pathogenic and commensal bacteria (Tadesse, 2012). The purpose of this research was to evaluate the presence of the three genes responsible for the tetracycline resistance (TetA, TetB, TetC) in E.coli bacteria isolated from poultry meat. The material used was represented by 41 strains of E.coli isolated from poultry meat and found in the collection of Food Control laboratory at FVM. The applied method was PCR multiplex in which specific primers for the three genes involved in resistance were used. The results show that 68.29% from the total amount of samples were positive to at least one resistance gene which means that they are resistant to this antibiotic. It was also noticed that TetA and TetB genes are more frequently met, representing 29.27%, respectively 24.39% from the total positive amount. Following this research we concluded that the comensal strains of E.coli isolated from poultry meat are in a high number resistant to tetracycline and can favor the resistance occurrence through poultry meat consumption also at humans. We therefore recomend the careful use of antibiotics when treating farm animals and the making of the antibiograms in case of infections with these sorts of bacteria.

KEYWORDS
E.coli, tetracycline, poultry meat, resistance genes.

REFERENCES
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