

PREVALENCE AND ANTIMICROBIAL RESISTANCE OF *E. COLI* ISOLATED FROM CHICKEN LIVER SOLD IN RETAIL MARKETS

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Summary. The objective of this study was to estimate the prevalence and the antimicrobial resistance of *E. coli* that contaminates raw chicken liver as one of the most popular poultry sub-product sold in retail markets.

Two hundred and forty samples of fresh raw chicken liver were obtained from national poultry producers in different retail marketing sites and tested for the presence of *E. coli*. One hundred *E. coli* strains (41.7%) were isolated and tested for antimicrobial susceptibility. The MICs of 14 antimicrobial agents were determined for each of the isolates using the broth microdilution method with custom-made microtitre plates. EUCAST cut-off values were used for the interpretation of susceptibility of isolated bacteria to antimicrobial agents. The most frequent resistances were demonstrated to streptomycin (100 %), ampicillin (60%), nalidixic acid (50%), ciprofloxacin (47%) and tetracycline (45%). No resistant strains were found to amikacin. Low percentage of resistant strains was recorded to ceftiofuran (2%), ceftiofur (7%), chloramphenicol (10%) and amoxicillin/clavulanic acid (15%). MIC's values above dilution ranges were found to all antimicrobials except amikacin. The highest numbers of resistant strains that demonstrated resistance to the highest concentrations of antimicrobial agents were found to ampicillin, nalidixic acid, sulphonamides and tetracycline. The data demonstrate potential risk during food preparation for consumers in the context of resistant *E. coli* as above-mentioned antimicrobial agents are used in veterinary and human medicine as well.

Keywords: antimicrobial resistance, *E. coli*, liver, chicken.