

PREVALENCE OF ANTIBIOTIC RESISTANCE AMONG ESCHERICHIA COLI, MEMBER OF NORMAL FECAL FLORA, ISOLATED IN CHILDREN IN TIRANA – ALBANIA

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ABSTRACT

Antimicrobial resistance is a major matter of public health concern. The aim of this study is to determine the frequency of antibiotic resistance of E.Coli in fecal flora of healthy children in Tirana – Albania. Samples were taken from about 342 children (excluding all subjects who have been ill / taken antibiotics for the last two weeks) from the kindergartens / schools of Tirana aged 1 year to 10 years (average age $5,24 \pm 1,44$). Rectal swab were plated on MacConkey agar with 10 mg/l ampicillin. Isolated resistant colonies Lac+ were identified like E. Coli (or coli - shape) and were studied further. Antibiotic resistant Escherichia Coli was present in 81 (%) per cent of children studied, and 32 (%) per cent resistance was transferable. 49 % of children that not used antibiotic (with no history of antibiotic consumption) during last year, carried resistant E. Coli and transferable R plasmids were present in 28% of them. 46 % of children that not frequent day/care center carried antibiotic E. Coli and transferable R plasmid were present in 20 % of them. Multiple regression analysis revealed that age, fathers education's, mothers education's sex and number of children in family could be identified as an independent risk factor for the emergence of resistance in the population studies. Normal fecal flora in the population we studied seems to play an important role as reservoir of antibiotic resistance gene.

Keywords: *escherichia coli*, antibiotic resistance, children