

## عنوان مقاله:

Molecular characterization and antibiotic resistance of enterotoxigenic and entero-aggregative Escherichia coli isolated from raw milk and unpasteurized cheeses

## محل انتشار:

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## خلاصه مقاله:

The aim of this study was to determine the occurrence of enterotoxigenic and enteroaggregative Escherichia coli strains and antibiotic resistance of the isolates in raw milk and unpasteurized cheese. Out of 200 samples of raw milk and 50 samples of unpasteurized cheeses, 96 and 24 strains of E. coli were isolated, respectively. Polymerase chain reaction (PCR) was used to detect the genes encoding heat-stable enterotoxin a (STa), heat-stable enterotoxin b (STb), heat labile toxin (LT) and enteroaggregative heat-stable toxin (EAST1). Twelve out of 120 (10.00%) isolates harbored the gene for EAST1, 2 (1.66%) isolates were detected as producing STb and LT toxins and 12 (10.00%) strains contained STb and EAST1 genes. None of the strains contain the STa gene. All of the strains were tested for antibiotic resistance by disk diffusion method. Disks included: ciprofloxacin (CFN), trimetoprim-sulfamethoxazole (TSX), oxytetracycline (OTC), gentamicin (GMN), cephalixin (CPN), nalidixic acid (NDA) and nitrofurantoin (NFN), ampicillin (AMP), neomycin (NEO) and streptomycin (STM). Among 120 isolated strains of E. coli, the resistance to each antibiotics were as follows: OTC 100%, CPN 86.00%, NDA 56.00%, NFN 42.00%, GMN 30.00%, TSX 28.00%, CFN 20%, AM 23.40% and STM 4.25%. None of the isolates were resistant to NEO. The present data indicate that different resistant E. coli pathogens may be found in raw milk and unpasteurized cheese. It poses an infection risk for human and transferring the resistant factors to microflora of the consumers gut.

## کلمات کلیدی:

Antibiotic resistance, Raw Milk, Toxigenic E. coli, Unpasteurized cheese

## لینک ثابت مقاله در پایگاه سیویلیکا:

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