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## **Molecular detection of bla TEM and bla SHV genes among clinical isolates of *Escherichia coli* from Kashan, Iran**

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*Escherichia* spp. is opportunistic pathogens that cause nosocomial infections. Because of their acquisition of multi drug resistant plasmids, these organisms are resistant to a number of antibiotics including extended spectrum cephalosporins and aminoglycosides. The aim of this study is to detect extended spectrum beta-lactamase (ESBL) producing *Escherichia coli* isolated from ShahidBeheshti Hospital in Kashan. This descriptive study was done on clinical specimens isolated from ShahidBeheshti Hospital in Kashan. Identification of the isolated bacteria was done by standard biochemical testes. Determination of antimicrobial susceptibility was done by disk diffusion method. The ESBL production was investigated on isolates by double disk synergy technique. ESBL producers were confirmed by MIC method. PCR amplification of ESBL genes, TEM-1 and SHV-1 was carried out. 150 specimens were *E. coli* and 70 were ESBL (46%). Of the total of 70 specimens isolates, 9 out of 40 (13%) included TEM-1 and SHV-1. 5 specimens (7%) were SHV-1 and 44 specimens (63%) were TEM-1. Given the high levels of resistance, accurate anti-biogram tests before prescribing antibiotics and avoiding indiscriminate use of antibiotics are essential.

### **Biography**

Khorshidi Ahmad currently working as a faculty at Department of Microbiology and Immunology, Kashan University of Medical Sciences, Kashan, I.R. Iran.

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