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**Title:** Detection of Integron and genes encoding ESBLs in E.coli and Klebsiella pneumoniae from urine samples by PCR method

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**Abstract:**
Background and objectives: Antibiotic resistance pertaining of extended spectrum beta lactamases recently has highly increased especially between gram negative bacteria such as enterobacteriaceae, pseudomonads and Staphylococci. The most observations are for Enterobacteriaceae. This study has been performed on E.coli and Klebsiella pneumoniae in clinical isolates of urinary samples, one of the most significant infections and patients that ESBL resistance could be considered is urinary tract infections. Integrons are sequences of DNA like transposons with short sequences and typical signals for integration. They can transfer genes by multiple ways of transferring. These elements could bear the ESBL genes.

Objectives: determination of prevalence E.coli and Klebsiella species including ESBL and their relation with integron sequences.

**Method:** 100 E.coli and 100 Klebsiella have been isolated from urine and stool samples. Then susceptibility antibiotic testing such as epiometery test (E-test), disc diffusion test and MIC has done with prototypical antibiotics indicative for ESBLs like Ceftriaxon, Ceftazidim, Cefotaxim, Cefpodoxim, Aztreonam and Clavulanate added to Cefotaxim and Cefpodoxim. ESBL bacteria have been preserved in -70°C freezer and PCR performed on them. The studied gene groups for ESBL were CTX, TEM, SHV and Int.

**Results:**
33 of E.coli were positive for ESBL with frequency include: CTX (30), TEM (15), SHV (25), and Int (18). 29 Klebsiella were positive for ESBL with frequency such: CTX (28), TEM (24), SHV (20) and Int (14).

**Conclusion:** it could be perceived that among these strains 48% concomitantly have ESBL genes and Integrons after.

**Presentation:** Poster