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Virulence Factors And Molecular Level Studies On Multiple Antibiotic Resistant *Escherichia Coli* From Uti

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Abstract

Urinary tract infection (UTI) are known to be among the most common observed infections in clinical practice and more than 25% of all women experience some form of UTI at least once during their lifetime. The Enterobacteriaceae, were the most frequent pathogens detected causing 84.3% of the UTIs (Gales et al., 2000). It was found that a high proportion of the isolated strains exhibited multiple antibiotic resistance. MDR strains were tested for virulence factors, namely haemolysin production and serum inactivation. It was found that all the tested isolates possessed these virulence factors. Additional tests on the isolates in terms of plasmid curing revealed that the plasmid cured cells lost the antibiotic resistance markers suggesting the plasmid mediated antibiotic resistance. An effort was made to isolate plasmid DNA of selected MDR strains and correlate the RFLP of the test strains with the pathogenic characteristics observed. The results obtained only stress the need for better vigilance in terms of effective and cautious use of anti-microbial agents for such a widespread disease, in the context of the alarming worldwide incidence of MDR pathogens which will go a long way in saving such life saving drugs for the future.

***Keywords*:** Urinary tract infection (UTI), Enterobacteriaceae, Multi Drug Resistant (MDR), Restriction Fragment Length Polymorphism (RFLP).

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