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## The sensitivity pattern of *Escherichia coli* strains to Levofloxacin in a tertiary care hospital

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### ABSTRACT

To study the sensitivity pattern of *Escherichia coli* to Levofloxacin in a tertiary care hospital. The study was done for a period of 2 years from January 2010 to December 2011. A total number of 945 patients were included in the study. Cases which were culture positive for *Escherichia coli* were identified and their sensitivity pattern for Levofloxacin was assessed. 81 patients were found to be having *Escherichia coli* infection. Among these 81 patients having *Escherichia coli* infection 66 patients (81.4%) were sensitive to Levofloxacin.

**Keywords:** *Escherichia coli*, Levofloxacin, Sensitivity

### INTRODUCTION

Antibiotics play a major role in treating infections. Antibiotic sensitivity is important in proper and effective treatment of infections. *Escherichia coli* is one of the most common etiologic agent causing diseases such as urinary tract infections, diarrhea, pyogenic infections and septicemia. *Escherichia coli* is a Gram negative rod shaped bacterium that is commonly found in the lower intestine of warm-blooded organisms. *Escherichia coli* and related bacteria constitute about 0.1% of gut flora & fecal-oral transmission is the major route through which pathogenic strains of the bacterium cause disease.[1] Inaccurate diagnosis and inappropriate treatment could result in complications like acute renal failure, thrombocytopenia & haemolytic anemia.[2]

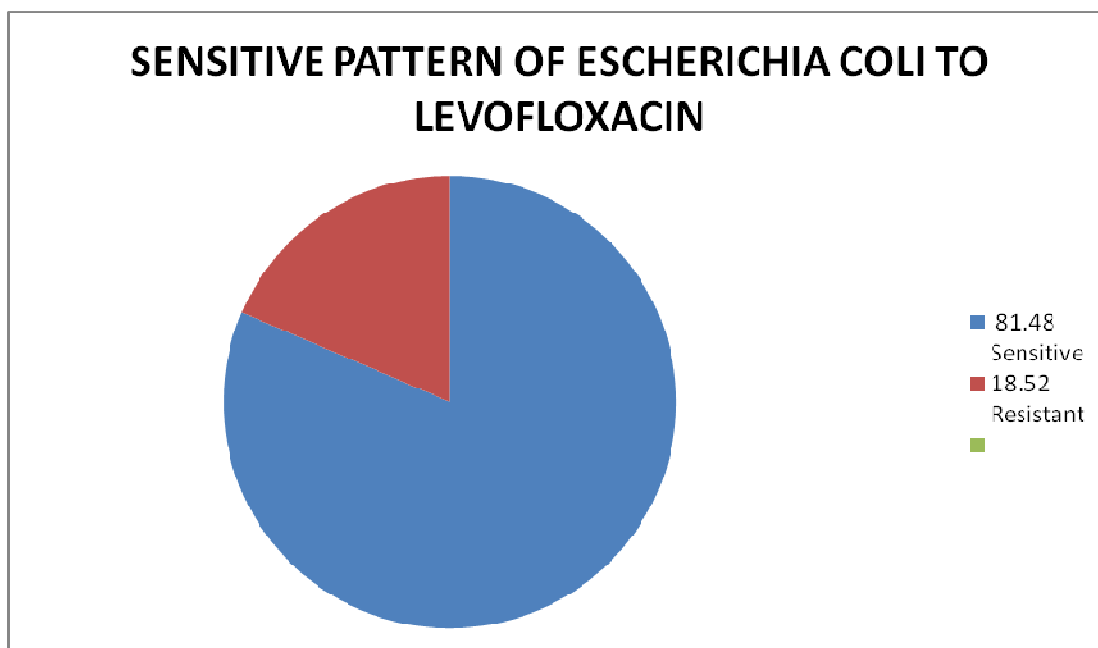
Levofloxacin is a synthetic chemotherapeutic antibiotic of the fluoroquinolone drug class.[3,4] and is used to treat severe or life-threatening bacterial infection or bacterial infection that have failed to respond to other antibiotic classes.[5,6] Second generation fluoroquinolones have been very helpful in controlling infections caused by *Escherichia coli* which is supported by following data.

### MATERIALS AND METHODS

Culture & sensitivity reports enrolling 945 number of patients over a period of two years was studied. Among these 81 patients having *Escherichia coli* infection 66 patients (81.4%) were sensitive to Levofloxacin. *Escherichia coli* is more sensitive to Levofloxacin than to other drugs..

### RESULTS AND DISCUSSION

Among these 81 patients having *Escherichia coli* infection 66 patients (81.4%) were sensitive to Levofloxacin. *Escherichia coli* is more sensitive to Levofloxacin than to other drugs used.



This study is done to establish antibiotic policy in our hospital which helps in controlling infection rate. Proper selection of medication after antibiotic sensitivity test is mandatory in treating infection so that morbidity and mortality due to infection is minimised.

Antibiotic sensitivity test is a must before medication is started.

#### CONCLUSION

Levofloxacin 500 mg given once daily for 5 days is very effective in controlling *Escherichia coli* infections in tertiary care hospital.

#### REFERENCES

- [1]. Ananth Narayan, Paniker; Textbook of Microbiology Universities Press, India, **2009**, 8, 271-8.
- [2] R. L. Vogt, L. Dippold, *Public Health Rep*, **2005**, 120, 2, 174-8.
- [3.] Nelson JM, Chiller TM, Powers JH, Angulo, FJ. *Clin Infect Dis* , **2007**, 44 (7), 977-80
- [4] Kawahara, S. *Nippon Rinsho*, **1998** 56 (12): 3096-9
- [5] Liu, H.; Mulholland, SG. *Am J Med* **2005** 118 Suppl 7A (7). 14S-20S
- [6] Mac Dougall C, Guglielmo BJ et al. *Emerging Infect Dis*, **2005**, 11 (3), 380-4