

Resistogram pattern of *Escherichia coli* isolated from various clinical samples in & around Kanchipuram

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E. coli is one of the main cause of nosocomial infection in humans. *E. coli* being one of the common organism causing hospital acquired infections exhibits ESBL production Causing resistant to Beta lactam group of drugs resulting in limited treatment options. Hence, this study was done to know the resistance pattern in *E. coli* and their virulence factors. Materials and Methods: Samples (urine, pus, sputum) were collected & processed as per standard protocols *E. coli* were isolated. Antibiogram done as per CLSI guidelines. ESBL & MBL screening done, Biofilm formation of *E. coli* was studied in correlation to antibiotic resistance. Result: 235 *E. coli* were isolated from various clinical samples. Out of 235, 148 (62.97%) showed resistance to ceftazidime & cefatoxime, 53 (22.55%) were ESBL producers, 19 (8.8%) showed resistance to imipenem, 32 (1.27%) were MBL producer. *E. coli* were resistant to nalidixic acid, 119 (50.6%) followed by Cotrimoxazole 98(41.7%), Ciprofloxacin resistance was 135 (57.6%) and MIC ranged from 8- 64 µg/ml. Among 235 *E. coli* isolates 169 (46.38%) were MDR of which 29 (12.34%) were strong biofilm producers. Conclusion: This study highlights that all isolated ESBL producers were resistant to 3rd Gen. cephalosporins. This increase in resistance to number of commonly used antibiotics shows the emerging drug resistance. In view of this, ESBL testing and MBL screening should be made as a routine testing which will help in the shuffling of antibiotics and for proper treatment and to prevent further development of bacterial drug resistance

Biography

Sivasankari Murugan has completed MBBS from Rajah Muthiah Medical College and Post graduation MD (Microbiology) from Madras University, Tamil Nadu, India. She is Associate Professor in Microbiology at Meenakshi Medical College & RI, Kanchipuram, Tamil Nadu, India. She has published more than 30 research papers in reputed journals. Her areas of interest include Hospital Infection Control, Anti Microbial resistance surveillance. Under gone training in NABL & NABH accreditation courses & Currently working as NABH Co-ordinator.

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