

Screening of Extended Spectrum Beta lactamase Producing Gram Negative Bacilli Isolated from Clinical Cases

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Abstract

Background and objectives: Extended Spectrum Betalactamase producing (ESBL) strain is one of the emerging health related problems in the world recently. Some of the species of the gram-negative bacilli including Klebsiella Pneumonia & Escherichia Coli are well known ESBL producing among bacteria, and they cause uncontrollable infections. This Cross-sectional study was designed to asses the ESBL producing gram negative bacilli among inpatients of Shohada-ye- ashayer hospital (Khorram Abad).

Materials and methods: Samples were processed with routine laboratory methods. ESBL producing gram negative bacilli were screened with MacConkey Agars containing 4 mg/liter Cefotaxime and confirmed with double disk synergy method as recommended by national standard laboratory institute.

Results: Fifty- three cases (23.55%) of 225 isolated gram negative bacilli are positive for ESBL. The most isolated species of ESBL are 20 Klebsiella pneumoniae (8.88%), 10 Escherichia coli (4.44%) and 10 pseudomonas aeruginosa (4.44%). The most ESBL producing gram-negative bacilli were Isolated from urine samples (21 cases; 39.62%) and Ten cases (18.86%) from Pulmonary samples.

Conclusion: The Results indicate that ESBL producing gram-negative bacilli are frequently isolated from Shohada-ye-Ashaier Hospital. Regarding the high resistance of these strains against many of the antibiotics and even against Carbapenems, health- care providers need to plan controlling policies for such strains.

Key words: Escherichia coli, Klebsiella Pneumoniae, Extended Spectrum Betalactamase, Khorram Abad .