ESBL PATHOGENS IN STERILE FLUIDS

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AIMS AND OBJECTIVES
Detection of Extended spectrum beta lactamases from archived isolates recovered from sterile fluids 2009-2010.

MATERIALS AND METHODS
This study was performed at the Department of Microbiology, Vardhaman Mahavir Medical College and Safdarjung Hospital for a period of two months. A Total 50 archived multi drug resistant gram negative bacillary isolates from various sterile fluids were randomly selected, preserved from October 2009 to June 2010 were included in the study. These were first sub cultured and then antibiotic sensitivity was performed as per CLSI 2009. Disk diffusion test was applied to screen for antibiotic resistance. Screening for ESBL was carried out using DDST (Double disc synergy test), and the results were further confirmed using E strip method.

RESULTS
The ESBL producing organisms were first detected in E.coli (87.5%) followed by Klebsiella (72.72%) and then by Acinetobacter (60.86%). (P value < 0.05) Total 74% of the isolates test positive for AmpC and 12% test negative and 14% of the results cannot be determined. MBL production is recorded only by Acinetobacter species (21.37%). E strip method has been used to confirm the presence of ESBL. By this method 72% of the isolates test positive and 28% of them test negative for ESBL production. The highest ESBL production has been recorded in E. coli (87.5%), followed by Klebsiella (72.72%) and then by Acinetobacter (60.86%). (P value < 0.05). MBL detection has also been confirmed by E strip method .10% of the total isolates record MBL production and 90% of them are non MBL producers. Out of the 3 species, only Acinetobacter is an MBL producer (21.73%). 100% of the E. coli and Klebsiella isolates are non MBL producers and 73.91% of the Acinetobacter isolates (P value < 0.05).

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