J Infect Dis Ther 2017, 5:2 (Suppl)
http://dx.doi.org/10.4172/2332-0877-C1-024

Prevalence of extended spectrum beta lactamases producing *Escherichia coli* isolated from clinical samples at tertiary care hospital Peshawar

Abdul Latif
Abasyn University, Pakistan

Escherichia coli are gram negative, facultative and non sporulating rod shaped bacteria. It is commonly inhabitant of the gastrointestinal tract of humans and animals. *E. coli* cause diseases like urinary tract infection cholecystitis, cholangitis and traveler's diarrhoea and the UTI which is more prevalent worldwide. Extend spectrum beta lactamase (ESBL) enzyme produces by *E. coli* which is capable of hydrolyzing first and third generation cephalosporin, and is inhibited by beta lactamase inhibitor. A total of 150 clinical samples (blood, urine, wound swab, body fluids) were collected from Post Graduate Lady Reading Hospital Peshawar. Different media used were: Nutrient agar, MacConkey agar and cysteine, lactose and electrolyte-deficient agar. *E. coli* gives pink colonies on MacConkey agar because it is lactose fermenter. For further confirmation, different biochemical tests were performed like triple sugar iron, indole and citrate utilization tests. The antibiotics susceptibility and resistivity was checked by disk diffusion method and different antibiotics were used. For extended spectrum beta lactamases (ESBL) detection, combined disk method was performed. In the clinical samples, the percentage of gram positive bacteria in blood was 20%, urine 14.2%, wound swab 83.3%, and body fluids 8%, and the gram negative in urine was 80%, blood 7%, wound swab 10% and body fluids 0%. *E. coli* was more prevalent in urine which was 25 (35.71%) and ESBL producing *E. coli* was 5 (20%). The ESBL producing *E. coli* was resistant to ciprofloxacin (100%), amikacin (40%), amoxicillin+clavulanic acid (40%), levofloxacin (80%), tazobactam+pipracilline (20%), gentamycin (100%), trimethoprim (60%), cefotaxime (100%) and meropenem (0%). Sensitivity toward levofloxacin was 20%, tazobactam+pipracilline 80%, gentamycin 0%, trimethoprim 40%, cefotaxime 0% and meropenem 100%, ciprofloxacin 0%, amikacin 60% and amoxicillin+clavulanic acid 60%. The most effective antibiotic against ESBL producing *E. coli* was meropenem while least effective antibiotics against ESBL producing *E. coli* were gentamycin and ciprofloxacin.

latif8092@gmail.com

Genotyping of *cryptosporidium* species isolated from human stool using PCR-RFLP according to *18s rRNA* gene (Shahrekord, Iran)

Bahman Khalili, Rahman Abdizadeh and Elham Moieni Sangjooie
Shahrekord University, Iran

Background & Aim: *Cryptosporidium* is an obligatory intracellular-extra-cytoplasmic parasite and also one of the most important pathogens causing diarrhea in human and animals. The aim of this study was investigation of *Cryptosporidium* prevalence in Shahrekord and also determining the most common species causing diarrhea in the district.

Methods: A total 1893 fecal specimens were collected from patients with acute or chronic diarrhea. Samples were stained with modified Ziehl-Neelsen method. Positive samples were collected for *Cryptosporidium* examined by RLFP PCR to detect *Cryptosporidium* species.

Results: In microscopic examination out of 1893 diarrheic fecal specimens, 20 isolates (1.05%) were positive for *Cryptosporidium*. PCR procedure confirmed 17 cases out of 20 positive samples (0.89%), and three positive specimens by Ziehl-Neelsen staining were negative in PCR procedure. The result of RFLP PCR showed that all positive samples were diagnosed as C. parvum.

Conclusion: The results of this study revealed that the frequency of Cryptosporidiosis infection has a higher rate among children. According to type of the parasite isolated in the study (C. parvum), we have to inform local health policy maker to prepare appropriate control programs for this zoonotic parasite.

khalilidehkordi1339@gmail.com