Abstract: Background and objectives: Urinary tract infection due to UPEC with antibiotic resistance is one of the most important Problems in infants and children. Prevalence of UPEC isolated from children urine samples and their antimicrobial susceptibilities were considered in this study.

Material and Methods: Urine samples of children were studied during one year. E.coli strains in urine samples were identified by conventional methods. The UPEC strains was confirmed by the gene including by detecting papC, papGII, papGIII, sfa/foc, hlyC, c nf1, iucC, fyuA, iron N genes by PCR method. Antibiotic susceptibility testing was done for E. coli by disk-diffusion method based On CLSI protocol.

Results: 12572 urine samples of suspected children with urinary infections were studied and then 378 E.coli strains were detected in which 149 of strains were UPEC (39.7%). All of Uropathogenic E.coli were resistant to penicillin, Oxacillin, Bacitracin, Cloxacillin and Pipracillin. Resistant to other antibiotics were: Sulfametoxazole 92%, Nalidixic acid 53%, Ampicillin 89%, Nitrofurantoin 9%, Cephotaxime 55.3%, Cefixime 67%, Gentamicin 72%, Cephalexin 75.6%, Ciprofloxacin 17.5%. The prevalence of papC 12.37%, papGII 15.06%, papGIII 13.17%, sfa/foc 17.23%, hlyC 39.41%, c nf1 23.4%, iucC 7.35%, fyuA 18.12%, iron N 22.13% genes by PCR method.

Conclusion: Of the putative uropathogenic Virulence Factors examined papC, papGII, papGIII, sfa/foc, hlyC, c nf1, iucC, fyuA, iron N were frequently associated with urinary tract infection. Especially iron N was most frequently associated with Cystitis and Pyelonephritis. Some VF genes were closely associated with a specific anatomical site of infection. The strong associations between several virulence factors (VFs) might indicate not only well-known genetic linkages, but also unknown functional linkages among these VF genes. Periodic review and formulation of antibiotic policy are needed for control of Acquisition of drug resistance. Further studies on better understanding of interaction of different virulence factors at molecular level are necessary as most urovirulent strain express multiple virulence factors Simultaneously.

Key words: Uropathogenic E.coli virulence genes, Antibiotic susceptibility pattern, UTI

Presentation: Poster