Clinical characteristics, antibiotic susceptibilities and treatment outcome in paediatric urinary tract infections - comparison of Escherichia coli and Non Escherichia coli group in a single centre

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Our objective was to study the clinical characteristics, antibiotic susceptibilities and treatment outcome of hospitalized paediatric patients with urinary tract infections(UTI) in comparison to the E coli and Non E coli group. A retrospective cohort study was performed in patients aged 0-16 years in single centre in Western Australia during 01st January 2016 to 31st December 2018. Comparison was made among the two groups. 61 (70%) of the culture positive UTI are caused by E coli. Infections caused by E coli are more associated with female patients (40.2% vs 29.9%, $p < 0.023$) older age (Mean 24.83 vs 10.12, $p < 0.014$), higher temperatures at presentation (mean 39.3 vs 38, $p < 0.001$), higher white cell counts (mean 17.29 vs 12.12, $p < 0.001$) and higher C reactive protein (mean 97.84 vs 15.56, $p < 0.001$). Gentamycin presented highest sensitivity to both groups (93% vs 92%) while Amoxicillin was most resistant in both groups (62% vs 80%). Cephalosporins were more resistant to Non e coli (77 % vs 8.3%). 7 (63%) children with E coli infection were multidrug resistant. Multivariate analysis revealed highest temperature, CRP and duration of hospitalization as significant factors. In conclusion, E coli shows much severe clinical and laboratory features compared to non E coli organisms. Gentamycin and Nitrofurantoin remains the most susceptible antibiotic in the management of paediatric urinary tract infections .

Biography

At present I am undergoing my overseas training in General Paediatrics leading to MD (Doctor of Medicine) Paediatrics in Sri Lanka. I have one research paper and few case reports for my publication.