ABSTRACT

Urinary tract infections are estimated at 150 million per annum worldwide, with significant morbidity and mortality, as well as serious financial implications. *Escherichia coli* is the most common cause of UTI in both community and hospital settings. Due to the high prevalence of *E. coli*, the antimicrobial susceptibility to common antibiotics remains of high of concern. The main objective of this study was to determine antimicrobial susceptibility patterns of *Escherichia coli* isolates causing urinary tract infections in pregnant women attending Kisii Teaching and Referral Hospital. The study was a cross-sectional descriptive study, where systematic random sampling was used to recruit 80 women suffering from UTIs. Demographic and risk factors were obtained from each participant through a structured check list. Midstream urine samples were collected and cultured for urinary tract infections diagnosis and antibiotic sensitivity testing for 12 drugs, using Mueller-Hinton Agar. Antibiotic sensitivity of *E. coli* isolates was determined by Kirby-Bauer disc diffusion and recorded as *sensitive* or *resistant* based on zone of inhibition. Coding and verification of the data was done before data analyzed. Data was analysed using SPSS version 15.0. Both descriptive and inferential statistics were used. Results were presented in tables and graphs. Chi-square test was applied to determine the association between risk factors and UTIs ($p \leq 0.05$). All the 80 urine specimens were positive for the growth of *E. coli*, while the other isolated bacteria included *Streptococcus pyogenes* (28), *Proteus mirabilis* (27) and *Staphylococcus aureus* (19). Antimicrobial susceptibility patterns of *Escherichia coli* ranged from 27% (tetracycline) to 92% (ceftriaxone). Susceptibility pattern per drug on *Escherichia coli* was as follows: Cefriaxozone (92%), Ciprofloxacin (70%), Gentamycin (70%), co-Trimoxazole (69%), Ampicillin (63%), Chloramphenicol (50%), Streptomycin (43%) and Tetracycline (27%) respectively. On the other hand, *E. coli* recorded the highest level of resistance to tetracycline (73%) and the lowest to ceftriaxone (8%). This study recommends that effective isolation, identification and sensitivity tests of uropathogens in pregnant mothers be conducted, as a standard operation in all health facilities. The government should equally expand the existing maternal health programs and put more emphasis on UTI treatment among pregnant women.