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Urinary tract infection and asymptomatic bacteriuria in pregnant women: causative organisms and antimicrobial sensitivity pattern.

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Introduction: Urinary tract infection during pregnancy has been proven to be associated with significant maternal and perinatal complications. To prevent that, it has to be treated with most sensitive antimicrobial therapy, which needs the identity of the organism and the antimicrobial sensitivity pattern in the community concerned. A descriptive cross sectional study was carried out in a group of 196 pregnant women presenting to antenatal clinic at teaching hospital Jaffna, Sri Lanka, from April to June 2012, where the practice was to screen antenatal women with urine full report and treat empirically, usually either cephalexin or amoxicillin due to their safety profile.

Objective: The objective was to identify the incidence of urinary tract infection both symptomatic and asymptomatic, common causative organisms and the antibiotic sensitivity pattern in the women attending the antenatal clinic.

Methods: Samples of mid-stream urine were collected and analysed by direct microscopy and cultured on CLED (cysteine lactose electrolyte deficient) media. Antibiotic sensitivity test pattern was done on positive cultures.

Results: The prevalence of urinary tract infection was found to be 12% with asymptomatic bacteriuria in 5% of the women attended the antenatal clinic. Coliforms were the common causative organisms, in 87% of the positive cultures. Antimicrobial sensitivity test showed sensitive to nitrofurantoin in 95.7%, cefuroxime in 91.3%, coamoxyclav in 78% and nalidixic acid in 65% of the study population. And resistance to amoxicillin and cephalexin in 56.5% and 83% of the women respectively.

Conclusion: From these findings it can be recommended to screen all the pregnant women attending antenatal clinic teaching hospital Jaffna for urinary tract infection as it has been found to be cost-effective if the prevalence rate is >2% and also the antimicrobial therapy should be based on sensitivity pattern than empirically because the commonly prescribed medication such as amoxicillin and cephalexin are found to be resistant.