

## P225. Study of bacteriuria in pregnant women and determination of their antibiotic susceptibility patterns

M Mehdinejad (IR) [1]

### Abstract

**Background:** Urinary Tract Infection (UTI) is one of the most frequently encountered problems owing to significant number of patients needing hospitalization during pregnancy. In pregnant women the incidence of UTI can be as high as 8%. The aims of this study were isolation of pathogenic bacteria from urine culture of pregnant women and determination of their antibiotic sensitivity patterns. **Materials and Methods:** In this study, midstream urine samples from 139 pregnant women with gestation age ranging between 6 to 38 weeks referred to Obstetrics and Gynecology clinic of Sina hospital, Ahvaz, Iran, were collected. The samples were cultured on Macconkey and Blood agar by calibrated loop method and after overnight incubation at 37°C, standard colony count were performed, which the colony count of 100,000 CFU/ ml or more were considered as serious bacteriuria. The isolates were simultaneously identified using conventional biochemical tests. The antibiotic susceptibility pattern was determined as recommendation of CLSI. **Results:** From 139 urine samples, 29(20.9%) were culture positive and colony count of more than 100,000 CFU/ ml. Among them 23 (79.3%) were gram negative and 6 (20.7%) were gram positive bacteria. The most predominant isolate was *Escherichia coli* 19 (65.5%), followed by *Staphylococcus aureus* 4 (13.8%), and the lowest rate was belong to *Enterobacter* with one case (3.4%). Based on the results of microscopic urine examination, 7 (24.1%) of samples revealed the presence of pus cells, and leukocyturia were observed in 11 cases (37.9%). The highest antibiotics sensitivity among gram negative isolates were seen against ceftazidime, ceftriaxone and cefotaxime, while they showed high resistance to amoxicillin and amoxicillin-clavulonic acid. **Conclusion:** Based on overall results, the rate of bacteriuria in examined pregnant women were 20.9% with the common causes of *E.coli* and *Staphylococcus aureus*. The most effective antibiotics for most bacterial isolates were cefotaxime, ceftazidime, ciprofloxacin and nitrofurantoin respectively. So it is recommended that routine microbiological analysis and antibiotic sensitivity test of urine samples of pregnant women be carried out before the administration of the drugs for the treatment and management of UTIs to avoid antibiotics resistance.

**Key words:** Bacteriuria, pregnant women, colony count, antibiotic susceptibility, *E. coli*

[1] School of Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran