Prevalence of Urinary Tract Infection in Antenatal cases: A Prospective Hospital Based Study

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ABSTRACT

**Background:** UTIs are one of the most commonly occurred and costly medical complication of pregnancy. It is diagnosed in nearly 20% of all pregnancies. It is also responsible for 10% of hospitalization during pregnancy.

**Methods:** Total 125 antenatal patients were observed out of which 32 had urinary tract infection. This study is conducted in Dept. of OBG, LBKMCH, Saharsa.

**Results:** Prevalence in our study, the presence of bacteriuria (32) in well status women is found to be 25.6%.

**Conclusion:** This study concludes that, improper health behaviors and genital hygiene along with increased sexual activity, urination habits, socioeconomic level and dietary habits play significant role in the occurrence of UTI during pregnancy.

**Keywords:** UTI, asymptomatically, Antenatal patients

INTRODUCTION

During pregnancy, urinary tract infection is the most common bacterial infection. In developing countries mostly it occurs in the low socioeconomic populations. A survey has been conducted in US and estimated that around 8 million cases of UTI occurs annually with huge economic implications,[1] Foxman B.[2] found that incidence of UTI in pregnant women of US was about 2.5–8.7% whereas Valiquez et al,[3] reported the occurrence of UTI in pregnant women to be 12–40% in developing countries. The reason could be due to the difference in the socioeconomic levels and standards of living.[4] It has been observed that UTI was about 4–10 times more prevalent in pregnant than in the non-pregnant women.[5] The reason of UTI is that during pregnancy, there is a change in urine chemical composition with increase in glucose and amino acids, which facilitate bacterial growth in urine.[6] Due to physiological, anatomical, and functional changes that occur in the urinary tract during pregnancy is also responsible for its high frequency. Microbial colonization or inflammation of the bladder (cystitis), urethra (urethritis), or renal pelvis and kidneys (pyelonephritis) are described by the urinary tract infection (UTI).

UTIs are one of the most commonly occurred and costly medical complication of pregnancy. It is diagnosed in nearly 20% of all pregnancies. It is also responsible for 10% of hospitalization during pregnancy.[7-10] During pregnancy, the anatomical and physiological changes that occur increase the possibility of urinary tract infection. The other possibilities of UTIs are associated with relaxation of ureteric smooth muscle triggered by progesterone may predispose to upper urinary tract dilation. The growing uterus leads to bladder displacement superiority and anteriorly and can also be

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METHODS
Study population: Total 125 antenatal patients were observed out of which 32 had urinary tract infection.

Study area: This study is conducted in Dept. of OBG, LBKMCH, Saharsa.

Study duration: Duration of study was one year.

Sample collection: A following 125 antenatal women with or asymptotically UTI were included in this study. Early morning clean-catch midstream urine was collected from each pregnant woman into a wide-mouthed sterile container and sent to laboratory for culture & sensitivity.

Inclusion & Exclusion criteria: only antenatal patients were included in this study & Pregnant woman having renal disease or on antibiotic therapy within 72 hours to the study days were excluded due to the fact that the antibiotic must have inhibited or destroyed the pathogens.

Data analysis: Data were analyzed with the help of Microsoft excel.

RESULTS
In present study, total 125 patients were included. Among the 125 antenatal patients, urinary tract infection observed in 32 patients. Out of these 32 cases 43.7% were belongs to 125 antenatal patients, urinary tract infection observed in 32 patients.  In present study, total 125 patients were included. Among the 125 antenatal patients, urinary tract infection observed in 32 patients. Out of these 32 cases 43.7% were belongs to 125 antenatal patients, urinary tract infection observed in 32 patients.  

DISCUSSION
The present study did not find a significant risk factor at maternal age. In previous researches only a significant increasing risk of 1-2% is reported per decade of age 24. Due to small sample size, it was not evident in this study. The maximum incidence is 21-25 years followed by 26-30 years. Previous studies also observed the similar results.[16-17] The reason could be that within this age group women are likely to have had many children before the present pregnancy. It has been reported that multiparty is a risk factor for acquiring bacteriuria in pregnancy.[18-19] Apart from this, sexual activity and certain contraceptive methods are also responsible to increase the risk.[20] The result of this study is also similar to the study of Leigh[21] and Onuh et al.[17] They have found the similar age group has maximum incidence in developing urinary tract infection in pregnancy.
In the present study, 32 urine samples gave significant growth amounting to 25.6% prevalence. These results are similar to Akinloye et al., who observed a prevalence of 21.7%. The results of the present study does not support the findings of Onuh and colleagues[17] who reported 32.7%. The reason could be that this study included both symptomatic and asymptomatic pregnant women as a result of different socioeconomic status of the pregnant women. This study also showed the frequency of urinary tract infection was higher in the third trimester in comparison to the first and second trimester. These results are supported by the study of Leigh,[21]

The past history of UTI was also found a significant risk factor in this study. Around 94% women had past history of UTI. Gulfareen Haider et al, revealed in their study that the prevalence of bacteriuria was 100% in women who had previous bouts of UTI. Other researches also acknowledge the significance of past history of UTI in causing recurrence in pregnancy.[23,21]

This study also revealed that during pregnancy sexual activity was also responsible for UTI. 80% women of 21-35 yrs age group were sexually active. This has also been observed in study of Gulfareen Haider et al.[23] A study conducted by Patterson[21] found that UTI increases in women who are sexually active. The reason could be that during sexual intercourse, bacteria been massaged up the urethra into the bladder during pregnancy/child birth.[24-25]

Low socio-economic status, not washing genitals before and after coitus, not voiding urine post coitus and washing genitals from back to front are some of the other risk factors for UTI during pregnancy.[26-27] In our study, the presence of bacteriuria (32) in well status women is found to be 25.6%.

CONCLUSION

Based on the findings of this study suggested that, UTI remain a prevalent problem during pregnancy especially in developing countries. Improper health behaviors and genital hygiene along with increased sexual activity, urination habits, socioeconomic level and dietary habits play significant role in the occurrence of UTI during pregnancy.

REFERENCES