Introduction

Asymptomatic bacteriuria is defined as the presence of actively multiplying bacteria in the urinary tract excluding the distal urethra in a patient without any obvious urinary symptoms. **(Alan et al., 2003)**

Urinary tract infections are the second most common infections, causing considerable anxiety and morbidity in women. **(Josip, 2006)**

Asymptomatic bacteriuria is common in women and increases in prevalence with age, and sexually active women have prevalence as much as five times higher than women who are not sexually active.

(Lindsay, 2003)

Asymptomatic bacteriuria occurs in 40% of elderly adults.

(Chris D and Hugh W., 1996)

The incidence of asymptomatic bacteriuria during pregnancy varies from 2 to 7 percent, the American College Of Obstetricians and Gynecologists (2002) recommended routine screening for bacteriuria at the first prenatal visit. **(Cunningham et al., 2005)**

Approximately 1-2% of women who are not bacteriuric at initial screening early in pregnancy will develop bacteriuria later in the pregnancy. **(Lindsay, 2003**)

Detection of all women with asymptomatic bacteriuria is important as 25% to 30% will develop symptomatic urinary tract infection while pregnant. The sequelae of urinary tract infection in pregnancy include pyelonephritis, premature labour, and preterm rupture of the membranes.

(Douglas G and David H, 1998)

Bacteriuria either asymptomatic or symptomatic is common in pregnancy and if left untreated asymptomatic bacteriuria will lead to acute pyelonephritis 20-30% of cases .This may result in low birth weight infant ,premature delivery and occasionally stillbirth so it is a serious threat for the mother and the unborn child . Bacteriuria is associated with a 50% increase in the risk of premature delivery, preeclampsia, anaemia and post-partum endometritis .It is well documented that effective treatment of asymptomatic bacteriuria significantly reduces the incidence of pyelonephritis, premature deliveries and low birth weight infants**.**

(Bendict, 2000)

There is a high incidence of pyelonephritis occurring later in pregnancy, usually at the end of the second trimester or beginning of third trimester in women with asymptomatic bacteriuria identified and not treated early in pregnancy. Studies have consistently reported a decrease in acute pyelonephritis later in pregnancy from 20-30% to 2-4% for women who have been identified with asymptomatic bacteriuria in early Pregnancy and treated. **(Lindsay, 2003)**

Escherichia coli is the predominant pathogen in uncomplicated UTI in women, associated with more than 80% of cases. Staphylococcus saprophyticus is found in 15% of cases. Other members of the Enterobacteriaceae family, such as Klebsiella species, Proteus species, or Enterobacter species are associated with uncomplicated UTI. Group B streptococci are an uncommon pathogen in UTI in young healthy women, but require treatment in pregnant women. **(Steven et al., 2005)**

According to the Infectious Diseases Society of America (IDSA) guideline , the diagnosis of asymptomatic bacteriuria in women is appropriate only if the same species is present in quantities of at least 100,000 colony-forming units (CFUs) per milliliter of urine in at least two consecutive voided urine specimens.**(Richard et al., 2006)**

Urine culture was used to determine the presence of asymptomatic bacteriuria with one culture of at least 100,000 colony-forming units of a single organism per mL used to define asymptomatic bacteriuria. Urine culture is the usual standard by which other screening tests are evaluated, but it is the most expensive and requires 24–48 hours for final interpretation. Various alternatives have been proposed, but each has limitations. Microscopic evaluation of urine for pyuria, presence of white blood cells, has a poor sensitivity, 22–29%.Urine dipstick testing for nitrite or leukocyte esterase has variable sensitivities (50–92%) and specificities (86–97%), depending upon the reference study chosen. Urine dip-slide testing (Uricult) has been reported in pregnancy, but it is not commonly used as a screening method. **(Shelton et al., 2001)**

Reagent strip testing of urine specimens for infection has become widespread in many areas of clinical practice. Such strips were sensitive and specific when used to exclude urinary tract infection in patients

attending an urodynamic clinic and in pregnant women with symptoms of urinary tract infection. These reagent strips are effective and accurate when used to screen for bacteriuria in an effort to reduce the cost of urine analysis and culture. **(Douglas G and David H., 1998)**

It is well established that asymptomatic bacteriuria may have serious outcome in pregnancy. Including an increased risk of pyelonephritis and a strong association with preterm and low birth weight delivery**.**

(Bookallil et al., 2005)

Empirical treatment of all patients with symptoms is considered by some to be the most effective policy, but implies unnecessary antibiotic prescriptions. When the impact of this strategy on antibiotic resistance is recognized, the dipstick strategy may be considered a superior strategy overall. **(Josip, 2006)**

Established first line drugs used in the treatment of asymptomatic bacteriuria such as ampicillin and amoxicillin and trimethoprim-sulphamethoxazole are associated with high degree of resistance in Escherichia coli, the most common pathogen in the urinary tract .A survey of physicians in Denmark, Finland,Norway,Sweden confirms that nitrofurantoin is the drug of the first choice in the treatment of bacteriuria in pregnancy and no teratogenic effects have been associated with this agent.**(Bendict , 2000)**

Screening and appropriate treatement of asymptomatic bacteriuria improve outcomes.If the dipstick is positive the women should be treated with antibiotic without waiting for the midstream urine result. The antibiotic of choice is nitrofurantion. (**Bookallil et al., 2005)**

Nitrofurantoin as antimicrobial agent can be used for treatment of pregnant women with asymptomatic bacteriuria either 3-day course (100 mg twice daily) or 10- day course (100 mg twice daily).

(Cunningham et al., 2005)