PROBLEM OF ASYMPTOMATIC BACTERIURIA IN WOMEN

THESIS

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BY

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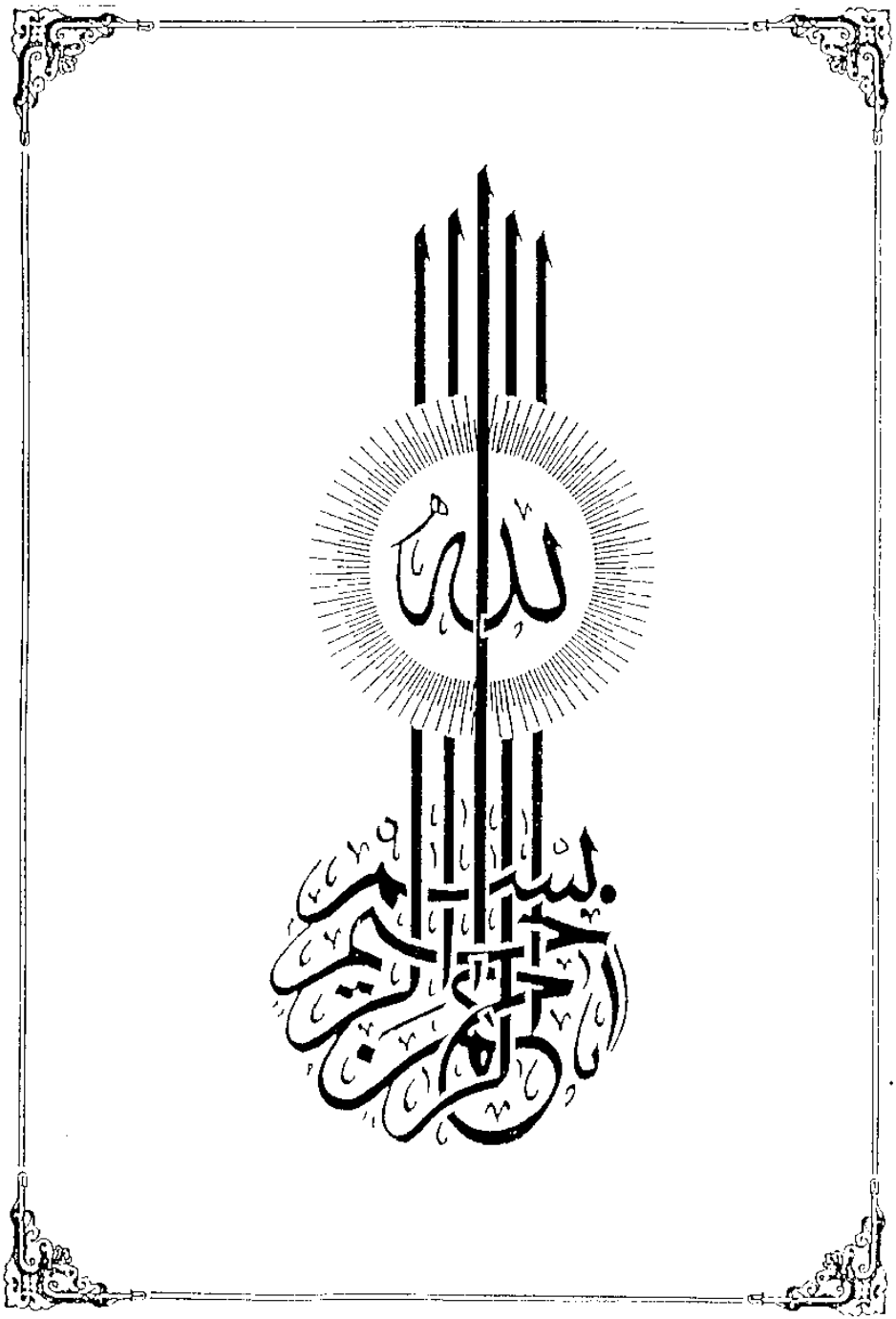

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List of Abbreviations

PSP	Phenolsulfon phthalein
C.F.U.	Colony forming unite
E.M.B	Eosin Methylen blue
H.P.F	High power field
T.T.C	Triphenyl-tetrazolium chloride
E.Coli	Escherichia Coli
I.U.D	ntrauterine device
I.V.P	Intravenous pyelogram
U.T.I	Urinary tract infection
ASB	Asymptomatic bacteriuria
pH	Reaction of the culture medi n either acidic or alkalin
✗	Bilharziasis
Nullig	Nulligravidae
Primig.	Primigravidae
Multig.	Multigravidae
Bact.	Bacterial
Signif.	Significant
Organ.	Organism.
Freq.	Frequency.

Introduction

INTRODUCTION

Urinary tract infection is the most common type of bacterial infection in females in developed countries. Acute pyelonephritis remains the most common medical complication of pregnancy, with an overall incidence of 1-2%. Morbidity from pyelonephritis affects both mother and foetus.

The mother is at risk of sepsis, recurrent pyelonephritis in the same pregnancy and subsequent development of chronic renal disease. The foetus is jeopardized by the potential ill effects of maternal fever, antibiotic administration and premature labour (Dorsten, 1983).

Gilbert (1984) reported that asymptomatic bacteriuria is defined as the presence of a single species of bacterium in a count of 10^5 organisms/ml or more in at least two consequative clean voided specimens of urine collected at different times from a person without symptoms referable to the urinary tract.

Several studies have indicated that there is a significant incidence of asymptomatic bacteriuria during pregnancy and an association of bacteriuria with maternal and foetal morbidity, (Deshan et al., 1966).

The incidence of asymtomatic bacteriuria is low 2% to 3% in private patients, while it may reach 6% to 10% in indigent patients (Turk et al., 1962).

Pritchard et al., (1985) found that the highest incidence of asymptomatic bacteriuria has been reported in black multiparas with sickle cell trait, and the lowest incidence has been found in white, socioecnomically more privileged women of low parity.

Turner (1961) and Sleigh et al., (1964) reported that almost 50% of pregnant women with asymptomatic bacteriuria developed clinical urinary tract infections before or shortly after delivery.

It is generally accepted that about 30% of the untreated patients with bacteriuria will subsequently develop acute pyelonephritis during the gestational period (Duff., 1984).

Henderson et al., (1962) found that the incidence of premature delivery to be over 20% in patients with bacteriuria, while Abramson et al., (1971) reported an association between bacteriuria of pregnancy and maternal anemia.

Some investigators as Stuart et al., (1965) demonestrated an association between bacteriuria and hypertension, while others object this relation (Monson et al., (1963).

An increased frequency of abortions and / or still births has been reported by several investigators as Layton (1964), therefore, screening of all pregnant women during their first antenatal visit by means of quantitative urine culture is strongly recommended, (Andriole, 1975).

AIM OF THE WORK

This study aims to estimate the prevalence of asymptomatic bacteriuria among Egyptian pregnant and nulliparous women attending the antenatal outpatient clinic of Maternity Hospital of Ain Shams University.

Also to compare the different screening methods used for diagnosis of asymptomatic bacteriuria to choose the most reliable, and practical method for screening among women attending the outpatient clinic.

Review of Literature

ANATOMICAL AND PHYSIOLOGICAL CHANGES OCCURING IN THE URINARY SYSTEM DURING PREGNANCY

Although the anatomical and physiological changes that occur during pregnancy chiefly involve the genital tract and the breasts, many other inter-related changes occur in other systems of the body. All these changes are initiated by Hormones produced by the faetal chorionic tissue (Clayton et al., 1975).

While Sims, (1968) postulated that an increase in cortisol during pregnancy may also enhance renal function. While Lockett., (1965) said that the secretion of prolactin produce large increase in renal blood flow and glomerular filtration rate.

Sala & Rubi, (1967) in their studies found that obstruction increases pressure in the ureter above the pelvic brim, which is relieved promptly by delivery. Dextrorotation of the uterus compresses the right ureter more than the left, so the hydronephrosis and hydroureter are more pronounced on the right side, and also pyelonephritis is more common in the right kidney during pregnancy.