DIFFERENCE BETWEEN UPPER AND LOWER URINARY TRACT INFECTION

THESIS

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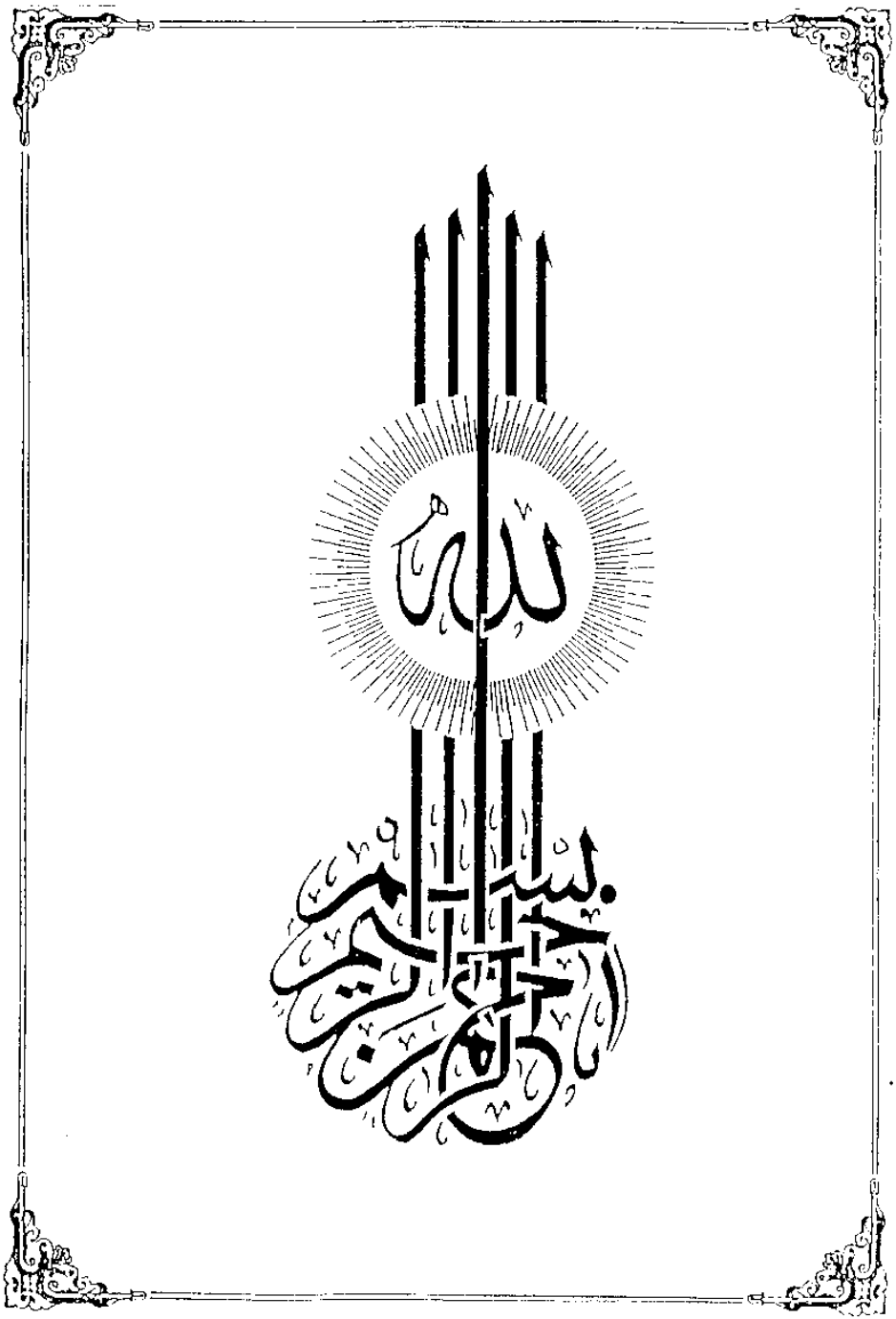

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TO MY MOTHER

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C O N T E N T S

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Review Of Literature

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FORWARD

Bactrial infection within the urinary tract is a common event in the community and, therefore can be described validly as a disease of general practice, the vast majority of patients are diagnosed and treated there without specialist referral. Between two and three consultation in every 100 are due to symptoms suggesting urinary infection and it has been said that it is the commonest condition for which a general practitioner prescribes an antibiotic in an adult.

It follows that general practitioners require detailed knowledge of this common disease (David & Netar, 198).

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INTRODUCTION

Incidence of Urinary Tract Infection:-

Urinary tract infection is one of the major bacterial diseases of infancy and childhood. Sauer,(1925), reported 15 cases of neonatal pyelitis, 13 of 15 were boys, this study had also noted a prepronderance of males over females. The risk of new born girls falling ill during childhood with asymptomatic urinary tract infection is at least 3 per cent, for a boy 1 per cent.

Recent information on urinary infections in the new born is available from the careful studies of (Winberg & Lincoln, 1964). Their analysis of so consecutive cases with neonatal infection represents the most comprehen ive study published in this subject. Obstructive malformation were proven in only 3 patients and suspected in 7, all were males. Obstructive abnormalities according to this study constitute only about 6 per cent of urinary infection in the new born. The reccurence rate

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of urinary infection was 29 per cent in the males and 17 per cent in females with an average of 16 per cent for both groups. There was a higher reccurence rate among these patients where infection began between the 10th and 30th day of life than in those who presented during the first 10 days of life.

In children, the distinction between asymptomatic and symptomatic bacteriuria is often a difficult one. Most of the studies have concentrated on the incidence of significant bacteriuria in this population. Abboh (1972), on suprapubic puncture in over 1,000 normal infants less than one year old, approximately 1 per cent were found to have significant bacteriuria, Male infants more commonly have significant bacteriuria than do females, perhaps because of higher incidence of congenital urinary tract anomalies. Males were found to have a 0.03 per cent incidence of sigmificant bacteriuria, while school girls ages 5 & 14 years had an

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incidence of 1.2 percent, which rise to 4 per cent in older girls. After 10 years of age, the incidence of significant bacteriuria was 4.5 to 5.9 per cent in various racial groups (Gillenwater, 1979).

Urinary infections in non pregnant women are common, varying with both the age of the patient and the population under study. In house to house population surveys in Wales and Jamaica, about 1 per cent of adult women were found to be bacteriuric in the 15 to 24 years old age group, increasing 1 or 2 per cent per decade to a prevalence rate of 10 per cent in 55 to 64 year decade (Kass et al., 1964).

Freedman et al., (1965), found young and middle aged Japanese women to have about the same frequency of bacteriuria of 1 to 3 per cent. Thus about 4 to 6 per cent of women of child bearing age will be bacteriuric at any one survey.

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Kunin & McCormack, (1968), reported that the frequency of bacteriuria in nuns is strikingly less 0.4 to 1.6 per cent in the four decades from 15 to 54 years, clearly suggesting that sexual intercourse plays a significant role in urinary infections. In the age of 15 to 34 years age group, bacteriuria was 12.8 times higher in white control women than in nuns, this difference in frequency became less in the age group of 55 years or over. This study also analyzed the effect of marriage, pregnancy, oral contraceptive and menstrual protection on the frequency of bacteriuria.

The clearest evidence linking asymptomatic bacteriuria with later development of symptomatic illness comes from studies of bacteriuria of pregnancy (Norden & Kass, 1968). Two to 6 per cent of pregnant females in prenatal clinics have significant bacteriuria early in pregnancy. Fifteen to 60 per cent of untreated patients willdevelop symptomatic disease in later pregnancy and about 30 per cent will have

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overt acute pyelonephritis (Brumfitt, 1975).

Fairely et al., (1966), showed that 44 per cent of women with bacteriuria of pregnancy had renal infection even when asymptomatic, and some had renal scars, they confirm a higher incidence of lower birth weights and still births in the 3.5 per cent of women with symptomatic urinary tract infection where the study include 55,000 pregnant women (Sever et al., 1979).

In contrast to studies in children and women, epidemiologic studies on the incidence of urinary tract infection in adult men are lacking. Freedman (1965), in a study of 1234 males in Hiroshima, Japan, found no positive culture in persons under the age of 49, but 0.6 per cent had bacteriuria between ages 50 and 59, 1.5 per cent in the next decade and 3.6 per cent above age 70. Thus, infection are rare in younger age groups because urinary infections in males at least in the absence of surgical manipulation such as prestatectomy

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or indwelling catheter, tend to be very symptomatic and require specific therapy. In older men who are instrumented for prostatic symptoms, their infections are often clearly iatrogenic, so prostatic obstruction and other causes of urinary retention enhanced urinary tract infection (Stamm,& Turck, 1980).

The incidence of urinary tract infection may be higher in Egypt due to endemicity of urinary schistosomiasis and its sequalae, particularly the obstructive lesions in the urinary passages. The incidence of pyelonephritis in autopsy mat is shown in table (1) quoted from (Sabbour, 1971)

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Table (1): Incidence of pyelonephritis in autopsy material.

Authors	Year	% Incidence
Bugbee & Wollstein	1924	4.5
Gibson	1928	6.0
Raaschou	1948	5.6
Jackson	1955	9.0
Brod	1956	6.0
Zollinger	1957	7.0
Mac Donald et al.	1957	15-20
Horak & Kratochrilova	1958	6.18
Rauman's et al.	1959	20.0
Kleeman et al.	1960	15.0

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