IMMUNOLOGICAL AND HISTOPATHOLOGICAL DIAGNOSIS OF GENITAL TUBERCULOSIS AND SCHISTOSOMIASIS IN INFERTILE WOMEN

Thesis
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of
Master degree in Obstetrics and Gynaecology

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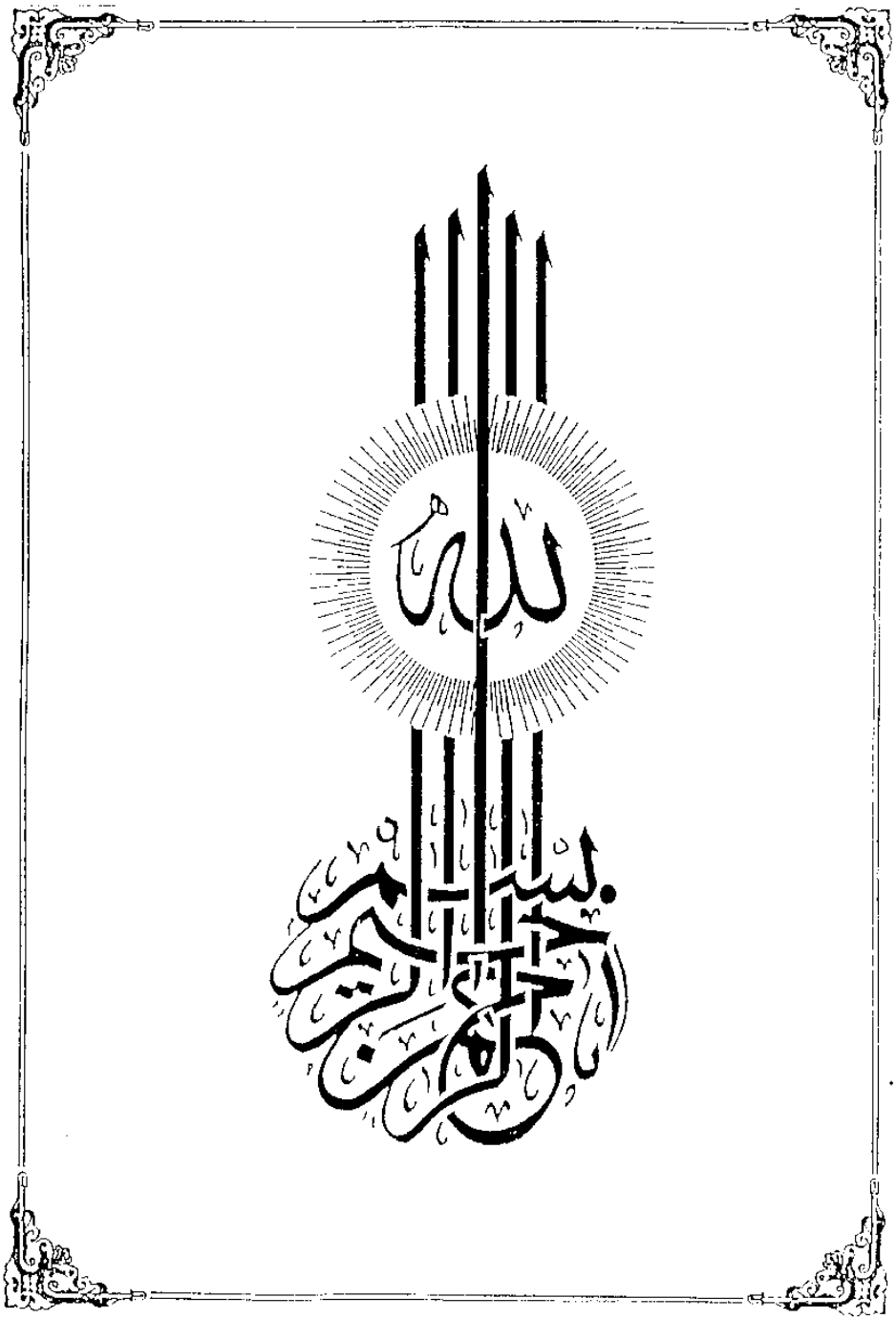

بسم اللـــه الرحمن الرحيم

وأنزل الله عليك الكتب والحكمة
وعلمك ما لم تكن تعلم وكان فضل
الله عليك عظيما

صدق الله العظيم

(سورة النساء آية ١١٣)

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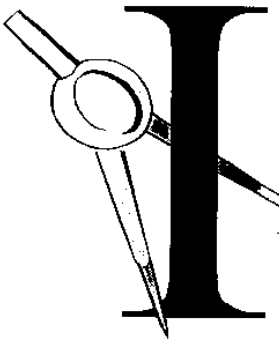

Introduction

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Infertility is the complaint of approximately 10% of couples which makes it one of the most common problem for which people seek medical advice.

Infertility has several definitions and medical, demographic, and popular usage may differ ***(wentz, 1988)*** and the American Fertility Society considers couple infertile when unable to achieve pregnancy with stipulated period of time, usually one year, of unrestricted coitus and without any contraception including lactation ***(Wallach, 1989)***.

The percent of married couples unable to conceive varies as reported by different authors, 10% ***(Wallach, 1989)*** 15% ***(Wentz, 1988)***, while ***(Behrman and Patton, 1988)*** reported that it climbed from 15% to 18 – 20% in the past decade. ***Hamitton (1992)*** mentioned that there is little evidence that is real and a recent community based study found a prevalence of infertility within general population of 14% ***(Rempleton et al, 1990)***.

As regards the causes of infertility the tubo-pelvic factors now a days represent the commonest cause. This is due to an increase in sexually transmitted diseases particularly, which cause pelvic inflammatory disease [PID].

Tubal and peritubal factors are reported in 25 – 50% of infertile women ***(Dhaliwal et al, 1987)***. In conjugation witn ectopic pregnancy are recognized sequellae of PID. Also, there is a close response relationship between acute salpingitis and infertility. such that the rate of infertility due to tubal dysfunction increases with the number and severity of episodes of salpingitis ***(Sellors et al, 1988)***.

The factors most seriously as well as most frequently influence infertility are related as to anatomic and pathologic alteration of fallopian tube, and peritoneal scarring from pelvic endometriosis or from other causes of extra-pelvic infections *"appendicitis or diverticulitis"* may produce a similar influence on tubal motility as gonococcal endosalpingitis which is the disease that most commonly alters cilia and produce anatomic deformity ***(Rock, 1992)***.

The sequellae of PID now cause a significant morbidity in women of childbearing age ***(Westrom, 1988)***. Attempts must be made to reduce both the prevalence and complications of those conditions as the proportion of women diagnosed as having tubal occlusion after one infection was reported as 2 - 8%, rising to 75% after three infections ***(Stacey et al, 1989)***. Also, ***Westrom (1988)*** stressed that tubal occlusion is a major cause of tubal infertility, while ***Williams (1992)*** reported that clinical investigators believe that about 30% of patients with infertility have the endometriosis as the only predominant cause.

In developing countries and particularly in rural areas where bilharzial tuberculous infections are common. the tubopelvic factor may be related to those infections.

Failure of ovulation accounts for 10 - 15%, cervical factor accounts for 5%, tubal factor accounts for 30 - 40%, the uterine factor accounts for 5%, and the remaining 10 - 20% of infertile patients no apparent cause is present.

Many physicians use the term pelvic inflammatory disease to describe a variety of infections in the pelvis: Acute or chronic. surgical, sexually transmitted infections, tuberculosis, and others.

The term is non-specific and inaccurate in that an inflammation does not necessarily result from infection Whenever possible, the term pelvic inflammatory disease should be replaced by more appropriate and descriptive terminology such as acute salpingo-oophoritis, pyosalpinx with pelvic peritonitis, acute tubo-ovarian abscess. and other more acceptable terms. However, this is not always possible ***(Thompson and Spenser, 1992)***. Meanwhile, ***Cartwright (1988)*** limits PID terminology to venereally acquired acute salpingitis, and considers pelvic infections following obstetrical delivery or gynaecological operations are not considered PID.

Infertility is well-recognized important sequella of genital tract infection. Of major concern is the current epidemic of sexually transmitted diseases and associated secondary epidemic of tubal obstruction and ectopic pregnancies. In addition, it has been suggested that certain sexually transmitted pathogens may directly contribute to infertility or reproductive wastage ***(Sweet, 1989)***. The most common and most important long-term sequellae of salpingitis is involuntary infertility. which occurs in about 20% of the cases ***(Westrom, 1975 and Westrom, 1980)***.

Pelvic infections include the following types:

1. Sexually transmitted diseases.
2. Infections caused by introduction of foreign material into the uterus such as:
   a. Intrauterine device
   b. Hysterosalpingogram
   c Tubal insufflation.
   d. Dilatation and curettage.
   e. Pregnancy interruption.
3. Pelvic infections following major gynaecologic operations

4. Puerperal and post-abortal infections.
5. Infections in the pelvis due to primary pathology in the gastrointestinal tract.
6. Tropical infection ***(Thompson and Spencer, 1992)***.
7. Tuberculosis.

The incidence of acute salpingitis in industrialized countries has increased from 20% to 50% over the past decade ***(Westron, 1980)***. It is estimated that 18 - 20 / 1000 women between 15 and 27 years of age acquire acute salpingitis each year in developed countries ***(Eschenbach et al, 1977)***. The United States is in the midst of an epidemic of sexually transmitted diseases. Between 1950 and 1975 the incidence of reported gonorrhea in the total United States population tripled to its hyperendemic rate of more than a million cases reported annually; because of the under-reporting it is estimated that over 3 million cases occur each year in the United States. In addition, chlamydiae have become recognized causing an even more common sexually transmitted disease and recent estimates suggest that 3 - 5 million cases of chlamydial infection occur annually in this country. As a result of this epidemic and the widespread use of intra-uterine contraceptive device the incidence of acute salpingitis has also increased ***(Westron, 1980)***.

It is difficult to estimate the true incidence of the disease not only because clinical diagnosis will be confirmed in only two thirds of suspected cases but also because serious infection may occur with few symptoms ***(Buchan and Vessey, 1989)***.

Acute salpingitis is the most common prevalent important complication of sexually transmitted disease pathogens. An estimated one million women a-year are treated for it in the United States of America ***(Curran, 1980)***. The same was reported by ***Washington and Kutz (1991)***, who mentioned that