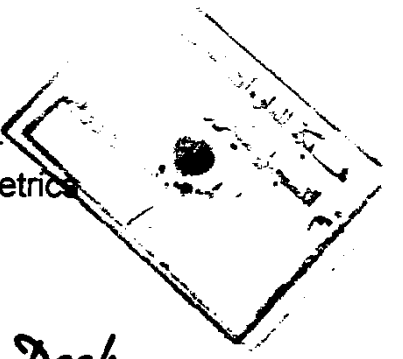
The Validity of The Postcoital Test



Thesis
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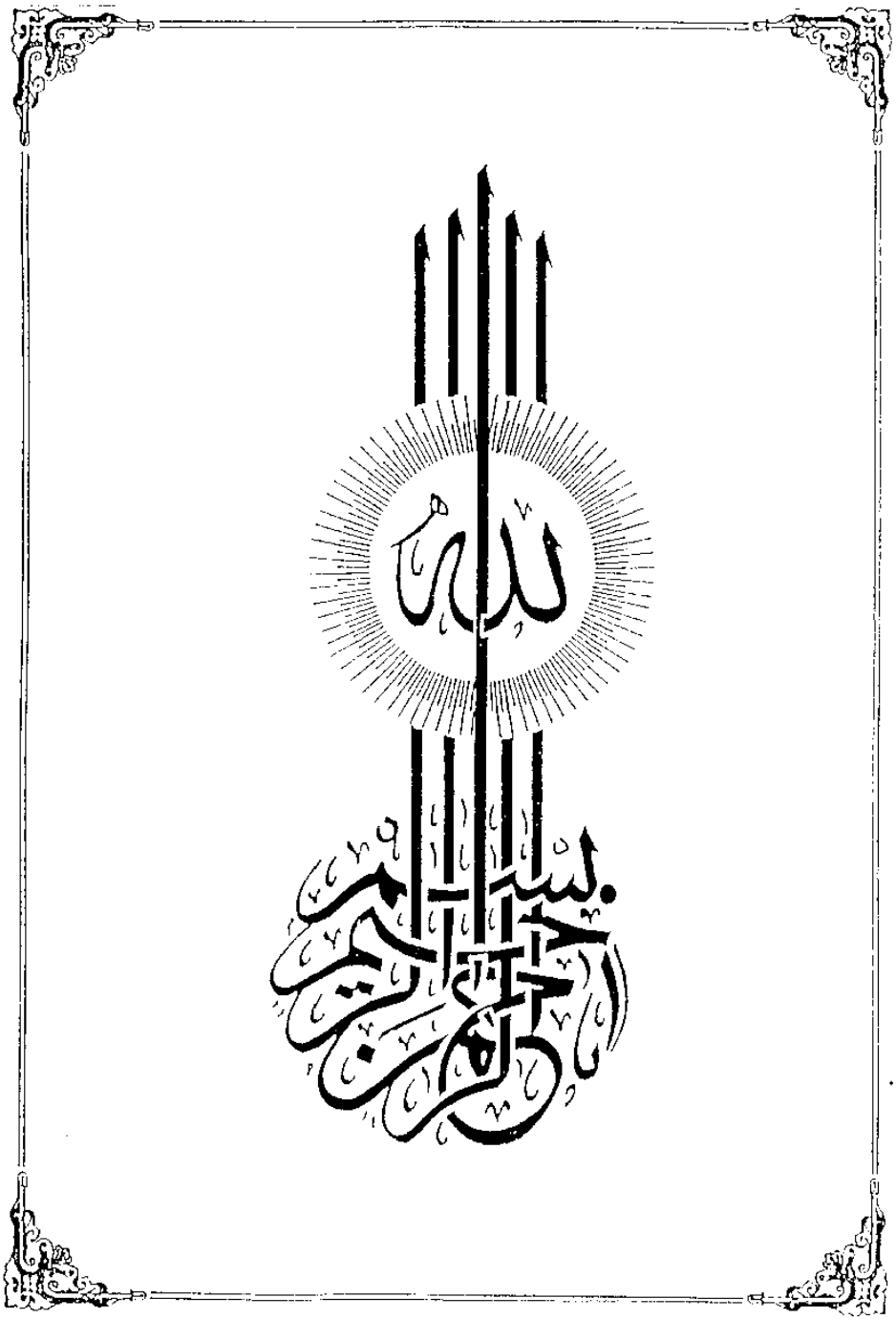

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LIST OF ABBREVIATIONS

AFS	American Fertility Society
AIH	Artificial Insemination Husband
BBT	Basal Body Temperature
CC	Chlomiphene Citrate
CICS	Circulating Immune Complex
CM	Cervical Mucus
DES	Diethylstilbestrol
E2	Estradiol
HCG	Human Chrionic Gonadotropine
HMG	Human Memopausal Gonadotropine
HPF	High Power Field
HSA	Human Serum Albumin
HSG	Hystrosalpingogram
IM	Index of motility
IUI	Intrauterine Insemination
LH	Leuteinizing Hormone
LPD	Leuteal Phase Deficiency
PCT	Post-Coital Test
PEB	Premenstrual Endometrial Biopsy
PGE	Prostaglandin E
PGF	Prostaglandin F
PGS	Prostaglandins
19-OHPGF	19- Hydroy prostaglandin F
ScMc	Sperm Cervical Mucus Contact Test
U/S	Ultrasonography
WHO	World Health Organization

INTRODUCTION
&
AIM OF WORK

INTRODUCTION & AIM OF THE WORK

Infertility is a common medical problem resulting from one or more defects in the reproductive tract, **[Markham 1991]**.

The incidence of infertility is 10% of the couples. The major categories of infertility are male factor, (35%); ovulatory factors, (20%); tubal factors, (20%); cervical factors, (5%); endometriosis, (10%) and unexplained, (10%), **[Tietze, 1957]**.

Cervical factors include changes in cervical architecture, mucus or both, resulting in hostile environment through which sperm must pass. Assessment of this factor includes an evaluation of cervical mucus both as transport medium for sperm and as a diagnostic indicator of bending ovulation, **[Markham 1991]**.

During coitus 200 to 500 million spermatozoa are deposited on the cervix and posterior fornix. Sperm migration through the cervix involves 3 distinct but interrelated factors; ability of sperms to penetrate, unique structure and composition of cervical mucus and morphologic configuration of cervical crypts, **[Moghissi, 1979]**.

The study of sperm penetration in the female genital tract is difficult. Numerous in vivo and in vitro tests have been designed to assess sperm penetration and survival in cervical mucus, **[Davajan et al., 1970]**.

Adequate sperm penetration in the cervical mucus and/or several artificial media in vitro has been accepted as a method of evaluating sperm capacity to penetrate the upper female genital tract. The postcoital test (P.C.T) is widely accepted as the most reliable of these tests, giving the best possible idea of the sperm capacity to reach the fallopian tubes, **[Tredway, 1975]**.

The importance of this test in the investigation of an infertile couple has been widely a recognized and it is now considered an essential part of infertility workup, **[Ansarie et al., 1980]**.

The postcoital test is perhaps the simplest and most informative single study to be carried out routinely in the investigation of the subfertile couple. It should be programmed for the wife's first visit to the clinic and will indicate at once the direction towards which further attention should be focused, **[Phillip and Carruthers, 1981]**.

The postcoital test has long been part of the routine infertility investigations and several studies on its prognostic value as well as its validity have been presented, **[Santamaouro et al., 1972]**.

These studies have shown that the test perse is informative only in certain cases, particularly for the diagnosis of cervicitis or other cases of cervical hostility, whereas its use for the clinical distinction of fertile from infertile couples is rather limited, **[Moghissi, 1972]**.

In evaluation of infertility, the macro and microscopic examination of the mid-cyclic postcoital cervical mucus is the only one which analysis aspects of both partner's reproductive system in an in vivo situation. PCT provides information regarding, coital technique, quality of cervical mucus interaction and indirectly, it indicates the ovarian function.

Although great deal of information about male partner can be obtained from PCT, semen analysis is still essential in evaluation of an infertile couple, **[Davajan, 1979]**.

The aim of the work:

The aim of this study is to investigate the prevalence of abnormal PCT among 100 infertile women within Ain Shams Maternal Hospital, Nasser Institute Hospital.

Also to correlate between PCT and other investigations carried out for infertility as male, ovulation factors, tubal and pelvic factor and uterine factor.

REVIEW OF LITERATURE

CHAPTER I: ANATOMY OF THE CERVIX

- Anatomy of the Cervix
- Histology and Electron Microscopic Study of the Cervix
- The Cervical Canal
- Histology of the Endocervix
- Pathological Changes of the Cervix

Anatomy of the cervix

Anatomy of the cervix:

The cervix is the specialized portion of the uterus that is below the isthmus, **[Pritchard et al., 1982]**.

The cervix is separated from the corpus externally by a slight constriction corresponding to the region of the internal os, **[Novak et al., 1975]**.

Jeffcoate, [1987], stated that the cervix is barrel shaped, measuring 2.5-3.5 cm from above downwards. Half of it projects into the vagina (portio vaginalis or vaginal cervix) while half is above the vaginal attachment (supravaginal cervix).

The supravaginal cervix on its posterior surface is covered by the peritoneum. Laterally, it is attached to the cardinal ligaments and anteriorly it is separated from the overlying bladder by loose connective tissue. The external os is located at lower extremity of the vaginal portion of the cervix i.e. portiovaglinalis, **[Pritchard et al., 1982]**.