HYSTEROSCOPIC EVALUATION OF PATIENTS WITH IUCD-RELATED ABNORMAL UTERINE BLEEDING

A THESIS

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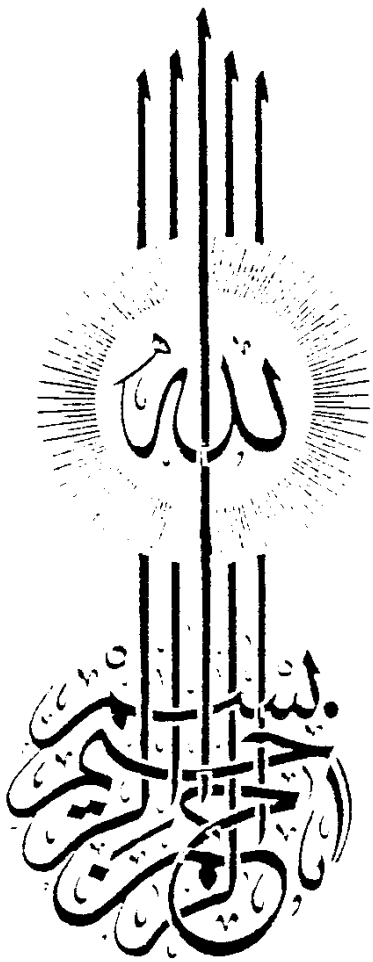

"وقل رب زدني علما"

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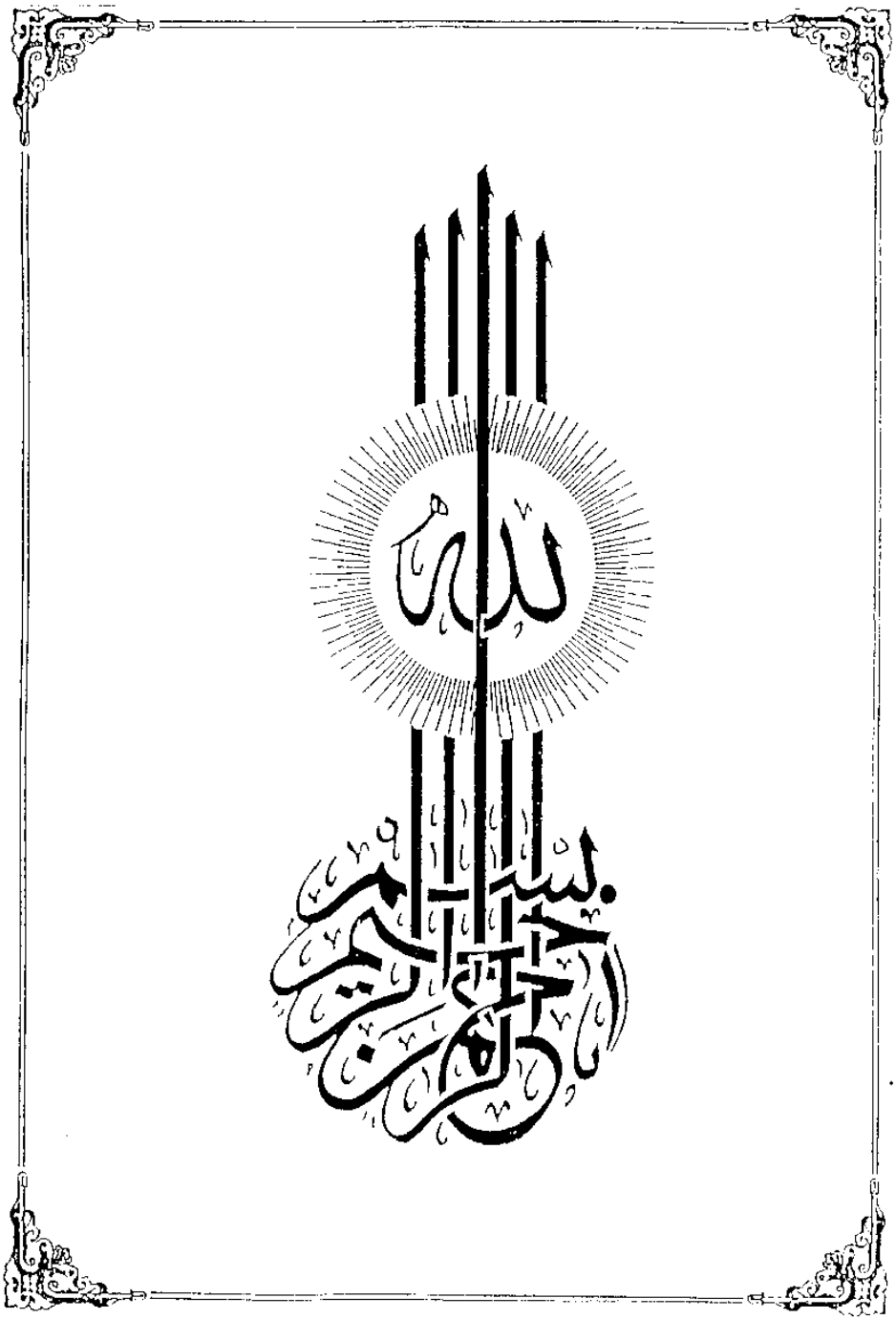

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C O N T E N T S

INTRODUCTION

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The history of endoscopy really begins in the early years of 19th century .[Lindemann,1984] . Hysteroscopy is one of the important endoscopic tools widely used in the diagnosis and treatment of the gynaecologic patients. [Valle, 1984].

With the increased use of intrauterine contraceptive devices [IUCDs] for contraception, has come an increase in the number of related problems. One of the most common side effects during the use of IUCDs is the abnormal uterine bleeding.

Inspite of the several important indications for hysteroscopy like evaluation of abnormal uterine bleeding in pre and postmenopausal patients, diagnosis and removal of a submucous leiomyoma or endocervical polyp or lost IUCD or other foriegn bodies and diagnosis and surgical treatment of intrauterine adhesions, the problem of abnormal uterine bleeding with IUCDs is still a vague one. Very few studies using direct visualization of the uterine cavity with the device insitu were carried to detect precisely the local pathology or other abnormalities .[Valle,1984] .

AIM OF THE WORK

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To evaluate by the hysteroscopic examination the possible visualized pathology and other abnormalities which may be the cause of the IUCD-related abnormal uterine bleeding and sampling of the endometrium whenever needed.

* * *

INTRAUTERINE CONTRACEPTIVE DEVICES[IUCDs]

Intrauterine devices as a method of contraception has passed through several stages of development.

Southam [1965] reported that in the human the use of contraceptive pessaries was reported in the eleventh century by the islamic scientist Avicenna .

During the late nineteenth century stem pessaries were in use. With the development many variations in shape and material are known. The shape varies from that of a collarstud to a ring, the material varies from bone to silver.

Among the best known IUCDs are the Lippes Loop and the Saf-T-Coil made of plastic, the M-device and the Y-device made of stainless steel, the Dalkon Shield made of polyvinyl acetate and the Copper-7, the Copper -T, the Nova-T and the Multiload Cu-250 device made of a plastic material with copper wires or sleeves.[W.A.A. van Os,1983].

Although the effect of the modern IUCD is considered to be less than the present day oral contraceptive , it

has the advantage of not requiring daily attention. The use of the IUCD has increased more rapidly during the past decade than the use of any other contraceptive method with as many as 60 millions women currently using it. However, while research carried out in the past years has produced a great deal of knowledge about IUCDs, it has not produced an ideal IUCD that minimizes all clinical problems . [W.A.A. van Os ,1983].

MECHANISM OF ACTION OF IUCDs

The mode of action of the IUCD is not entirely known, but a number of theories have been suggested :

Moyer and Shaw [1980] have reported that the most important theories are ; accelerated ovum transport through the tube resulting in inhibition of nidation, death of the blastocyst in the uterus as a consequence of a raised osmolarity in the uterine cavity, changes in the motility of the uterus , the effect of prostaglandins , changed sensitivity of the uterus to oestrogens and an anti-implantation effect from an inflammatory reaction with polymorphonuclear leukocytes and macrophages.

THE COPPER-MEDICATED IUCD

The copper IUCD is less often spontaneously expelled from the uterus, produces fewer cases of abnormal uterine bleeding and causes less pain than the non medicated devices. [Zipper et al.,1971] .

The copper device is effective in a relatively smaller size , a factor which is presumably one of the reasons for the reduction of the undesirable side effects.[Oster, 1972].

The copper IUCD produces both biochemical and morphological changes in the female reproductive tract .[Middleton and Kennedy, 1975] .

Kossonen [1980] reported that Cu-T 200, Cu-7 and nova-T IUCDs emit 50 ug of copper per day during a period of one year. The multiload Cu 250, Multiload Cu 375 and Cu-T 380 IUCDs emit 60-100 ug of copper during a period of one year.

THE MECHANISM OF ACTION OF CU-IUCDs

In addition to the previous theories, Oster and Salgo [1975] reported that copper very probably inhibits implantation by its effect on the proteins in the uterus.

Nutting and Mueller [1975] reported that copper may slow down the effect of progesterone in the uterus or even oppose it.

El-Badrawi and Hafez [1980] reported that copper has a possible effect on zinc enzymes e.g alkaline phosphatase, B-glucuronidase and acid phosphatase. Alkaline phosphatase is of importance for the development of the embryo, differentiation of new tissue and membrane transport. They also reported the possible spermicidal effect of copper.

Free copper radicals produced via auto-oxidation process may play an important role because of their disarranging effect on the implantation process [Van Os et al.,1980]. Also, they reported that the leucocyte infiltration in both stroma and epithelium is even more evident with copper IUCD than with inert one.

Van Os et al.[1983] said that in humans the humoral immunity found in the serum and uterine secretion was stimulated after the insertion of a copper IUCD.

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COMPLICATIONS AND SIDE EFFECTS OF IUCDs

As a method of contraception IUCDs have some side effects and complications. Berthet and Racinet [1980] divided them into complications during insertion and after insertion.

DURING INSERTION :

Berthet and Racinet [1980] and Tatum [1982] repored that during insertion of the IUCD syncope or vasovagal reactions such as nausia and bradycardia may occur. They added that, also, immediate perforation may occur and it is usually transfundal.

AFTER THE INSERTION OF THE TUCD :

Abnormal uterine bleeding: it will be discussed in details, later.

CRAMPING AND PAIN :

Hatcher et al., [1984] reported that cramping and pain is a very common complication of IUCD use. It may be due to sounding of the uterus, partial expulsion,

too large an IUCD, spontaneous abortion, ectopic pregnancy or pelvic inflammatory disease.

EXPULSION :

IUCD expulsion rate in most large studies ranges from 5 - 20/100 women at one year. Expulsion declines with the age of the user and among multiparous women. It occurs more frequent 4 - 8 weeks post partum or insertion in the 1st 17 days after the menstrual period [Tietze and Lewit, 1970].

LOST IUCD THREADS :

Hatcher et al., [1984] reported that lost strings may be due to retraction and curling, pregnancy, perforation or the patient could not feel them.

DIFFICULT REMOVAL :

Difficult removal may be due to sharp angle of the Cu- 7 or embedding in the endometrium after prolonged use [Hatcher et al., 1984].