Hysteroscopic Endometrial Ablation In Uterine Hemorrhage

A Thesis
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M.D. Degree
In Gynecology and Obstetrics

By
Khaled Hussein Abdel-Razek
M.B., B.Ch., M.Sc. Gyn & Obst
Ain Shams University

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K. H

Under Supervision of

Prof. Dr. Mohamed Bayomi Sammour
Professor of Gynecolgy and Obstetrics

Prof. Dr. Mounir Mohamed Fawzy El Hao
Professor of Gynecolgy and Obstetrics

Faculty of Medicine
Ain Shams University
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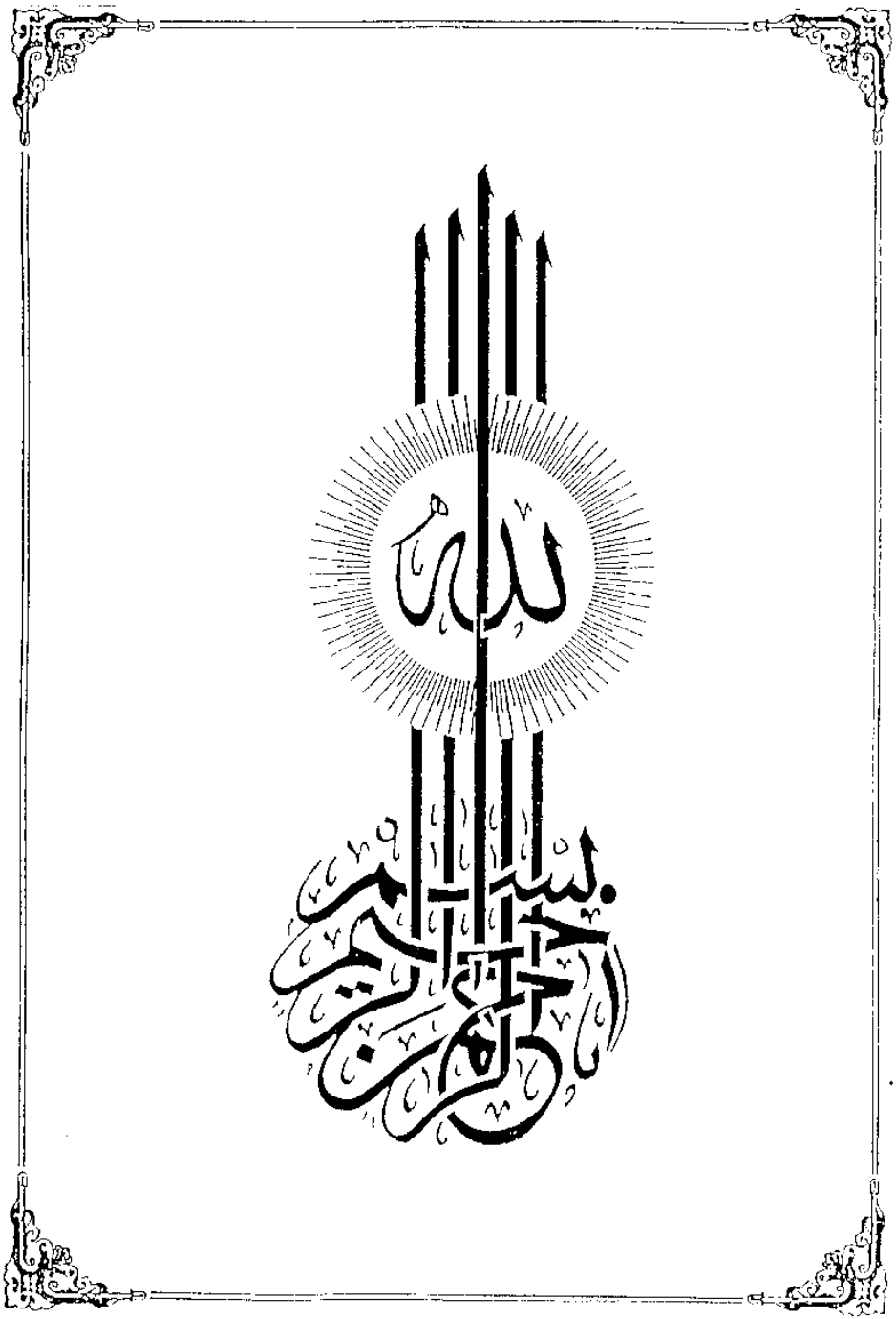

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CONTENTS

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INTRODUCTION

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INTRODUCTION

Excessive menstrual flow is, for many women, both a socially embarrasing and an incapacitating problem. Menorrhagia—that is, unacceptably heavy or prolonged loss of menstrual blood—is a common complaint of women during their reproductive years and an important cause of iron deficiency anemia in up to a quarter of women (Rybo, 1966). An increase in menstruation may be due to local causes such as endometrial polyps and fibroids or systemic factors such as hypothyroidism and bleeding disorders, but in most cases, no obvious abnormality is found (Chimbira et al., 1980).

The general approach has been to treat women with menorrhagia by a combination of sharp curettage and/or steroid hormones and to perform a hysterecotmy on those who fail to respond (Townsend et al., 1990). Poorly controlled menorrhgia has become the primary indication for hysterectomy, the most commonly performed major operation for women of reprodcutive age (Dicker et al., 1982 a).

The complications of hysterectomy include a 0.1% risk of death and a morbidity of 30%, as well as the physical,

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psychological, sexual , and social changes that occur after surgery (Easterday et al.,1983). In a certain number of chronically ill patients, definitive therapy is required for abnormal bleeding but hysterectomy may be too risky. Other patients by choice may wish to avoid hysterectomy.

An alternative to hysterectomy for menorrhagia is endometrial ablation. Several techniques have been used for ablation of the endometrium including installation of chemicals, cryosurgery, radiofrequency–induced thermal ablation, laser photovaporization, surgical diathermy, and hysteroscopic resection.

Goldrath et al. (1981) described laser photovaporization of the endometrium as a treatment for menorrhagia. This was performed on 67 women with a neodymium–YAG (Nd–YAG) laser administered through a hysteroscope. Treatment was successful in all but one woman, as evidenced by little or no menstrual flow, and the procedure caused no major postoperative complications. Performance of endometrial ablation using the Nd–YAG laser is limited by the availability of this laser, and requires precautions regarding forward scatter of the laser and the potential for retinal damage to the surgeon.

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Hysteroscopic endometrial destruction by surgical diathermy was first described by DeCherney and Polan (1983), as an emergency treatment for intractable and life–threatening uterine bleeding in women who were suffering from conditions such as leukemia and aplastic anemia, or who were unfit for conventional surgery. Cautery to the entire endometrial surface was done with a cystoscope–resectoscope with a wire loop electrode. The authors noted in this, and a follow–up study (DeCherney et al., 1987) that surgery was followed by amenorrhea or slight spotting; only one of their 19 surviving patients required a repeat procedure. Vancaillie (1989) reported that the ball–electrode is probably safer and easier to use than the wire loop.

Endometrial ablation with the hsyteroscope or hysteroscopic resectoscope is useful in women with contraindications to hysterectomy. However, in view of the financial expense and possible morbidity associated with hsyterectomy, hysteroscopic destruction or resection of the endometrium might not be limited to such women. Outpatient treatment, avoidance of incisions, and rapid recovery are appealing aspects of this type of surgery.

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AIM OF THE WORK

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The aim of this work is to :

- Review the literature about the different methods for hysteroscopic endometrial ablation or destruction.

- Introduce the technique of transcervical endometrial resection using the myoma resectoscope as a new modality in the treatment of uterine hemorrhage.

- Evaluate this technique operatively and postoperatively and compare it to other methods of endometrial ablation.

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REVIEW OF LITERATURE

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HYSTEROSCOPIC INTRAUTERINE SURGERY

HISTORICAL ASPECTS

Hysteroscopy was first described by ancient Greeks, who used a speculum , that they called a hysteroscope to inspect the postpartum uterine chamber (Marlow, 1984). However, the actual history of endoscopy began in the early years of the nineteenth century, where Bozzini of Frankfurt in 1805, built a system of mirrors and tubes through which candle light could be reflected into the body via a tube–shaped speculum in order to be able to inspect the nasal cavity, the vagina and the rectum (Van der Pas, 1983). The first commercial cystoscope became available in 1853 by Désormeaux who is titled as "the father of endoscopy" (Van der Pas, 1983).

The earliest report of a successful endoscopic examination of the endocervix and endometrial cavity, i.e. hysteroscopy, was performed by Pantaleoni in 1869, who used a modified Désormeaux endoscope to examine a 60–years old woman with uterine bleeding, where he discovered a polyp–like structure inside the uterine cavity (Lindemann, 1984).

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In 1879, Nitze developed a viewing instrument with lenses, utilizing direct illumination from a heated platinum wire contained in a water cooled glass tubing. This endoscope provided direct lighting within a body cavity and a magnified view of the interior. The Nitze cystoscope was an important milestone in endoscopy as it is considered as being the prototype for the present–day hysteroscope (Lindemann, 1984).

The first book on hysteroscopy was written by Duplay and Clado and published in 1898, it described instruments, techniques and clinical studies of 28 women (Siegler et al., 1990).

From such initial work, cystoscopy and hysteroscopy were born. By the early twentieth century, cystoscopy was an effective technique utilized regularly in urology for diagnosis and therapy. Hysteroscopy, in sharp contrast, developed far more slowly, so that not until one hundred years after its beginning did it begin to evolve into a clinical method widely used for diagnosis and treatment. The different rates at which cystoscopy and hysteroscopy progressed was mainly due to the respective anatomy of the bladder and uterus : one is thin–walled, is readily distensible, has a relatively stable and

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