

Day Clinic diagnostic hysteroscopy in a state hospital

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Summary

Within 6 years (1991-97), a total of 680 diagnostic hysteroscopies were performed at the Day Clinic of the 1st Department of Obstetrics and Gynecology of the University of Athens ("Alexandra" Hospital). The procedure was done without general or other forms of anesthesia, using the Siegler method of approach. However in 12 cases with cervical stenosis (1.7%) and 21 patients with marked nervousness (3.1%) general anesthesia proved inevitable. The leading indication was repeated failure of IVF (54.7%), while other indications included abnormal bleeding, amenorrhea and oligomenorrhea, a history of abortions, and infertility. Abnormal hysteroscopic findings were observed in 276 cases (40.5%) among which intrauterine adhesions, endometrial hyperplasia and polyps were the most common. We had no major complications or fatalities in our series and hysteroscopy proved to be a very useful, accurate and safe method of assessing uterine and endometrial functional status.

Key words: Hysteroscopy; In vitro fertilization; Abortions; Amenorrhea; Oligomenorrhea; Infertility; Intrauterine adhesions; Endometrial hyperplasia; Endometrial polyps; Submucosal fibroma; Septated uterus; Vagal reaction.

Introduction

In the last decades, endoscopic procedures have constantly been gaining space in the management of gynecological problems worldwide. Among them hysteroscopy has definitely become the method of choice, when abnormal functional conditions of the uterine cavity need exploration and subsequent treatment.

In contrast to "blind" methods, such as dilatation and curettage, or inaccurate two-dimensional ones like hystero-radiography, it offers visual inspection of the uterine cavity and evaluation of the endometrial lining for its integrity and functional status. Recently, sophisticated instrumentation has permitted the expansion of therapeutic indications for hysteroscopy, which has become a very useful tool in the hands of specially trained physicians.

In 1991, the need for proper hysteroscopic treatment led to the installation of a modern unit within the context of the Day Clinic of "Alexandra" Hospital in Athens. Adequate space was assigned to the new Hysteroscopic Unit, which was soon equipped with state-of-the-art instruments and staffed with specially trained personnel. The experience of the first six years of this unit in diagnostic hysteroscopy is hereby reported.

Materials and Methods

During the period 1991-1997, a total of 680 patients were subjected to diagnostic hysteroscopy for various reasons. Age ranged from 22 to 83, with a mean of 39 years.

Repeated failure (3 attempts or more) of in vitro fertilization (IVF) (372 patients) was the leading indication for diagnostic hysteroscopy among our cases (Table 1), while the procedure was

performed *before* IVF in 101 infertile women. Other indications included abnormal uterine bleeding – either not related to a previous pregnancy or after spontaneous and induced abortions – secondary amenorrhea and oligomenorrhea, infertility work-up and investigation of missed and habitual abortions.

In menstruating patients hysteroscopy was performed in the mid-proliferative phase. Standard procedure included oral administration of Hyoscin (20 mg) and Mefenamic Acid (500 mg) two hours pre-operatively. After placing a vaginal speculum, the cervix is grasped with a single-toothed tenaculum and a 2.7 mm hysteroscope, connected to the light source, video camera and Metromat CO₂ insufflator, is inserted directly, without using a cervical cup, according to the method described by Siegler [1]. No anesthesia, general or local, is administered during diagnostic hysteroscopy, with the exception of some cases where cervical dilatation proved inevitable.

Results

Abnormal hysteroscopic findings were observed in 276 (40.5%) of our cases. They included (Table 2) intrauterine adhesions (139 cases), endometrial hyperplasia (46) or polyps (37), atrophic endometrium (15), septated uterus (12) and submucosal fibroids (14), while in 13 cases incompetence of the cervical internal os was observed.

The duration of diagnostic hysteroscopy did not exceed 5 minutes and the majority of the patients were discharged one hour after the procedure. We had no major complications or fatalities in this series. Vagal reaction was observed in 9 patients (1.3%) and was managed with intravenous atropine (1 mg) administration. In 33 cases (4.8%) general anesthesia was deemed necessary, either because of cervical stenosis (12 cases - 1.7%) or due to hypersensitivity or nervousness of some patients (21 cases - 3.1%).

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Table 1. — *Indications for diagnostic hysteroscopy*

Failed IVF	372
Scheduled IVF	101
Abnormal uterine bleeding	37
History of induced abortion(s)	35
History of spontaneous abortion(s)	32
Secondary amenorrhea	26
Habitual abortions	26
History of missed abortion	21
Secondary oligomenorrhea	16
Infertility	14
Total	680

Table 2. — *Abnormal findings in 680 diagnostic hysteroscopies*

Intrauterine adhesions	139
Endometrial hyperplasia	46
Endometrial polyp(s)	37
Atrophic endometrium	15
Submucosal fibroid(s)	14
Cervical incompetence	13
Septated uterus	12
Total	276 (40.5%)

Discussion

After many years of scepticism about the usefulness of hysteroscopy, it is now widely acknowledged that it provides accurate and valuable information, while remaining a safe and relatively simple diagnostic method, easily accepted by most patients. Curiously enough, it was after the development of its therapeutic potential that most physicians recognized its diagnostic value. Still, what produced a tremendous rise in its impact was the manufacturing of the 2.7 mm hysteroscope, which offers excellent visualization of the endometrial cavity, while drastically reducing the need for anesthesia [2].

The advantages of "visiting" the endometrial cavity with an elegant optical instrument rather than "invading" it by means of a curette have at last become obvious to most physicians. On the other hand, when compared to the two-dimensional and often confusing images of – even modern – ultrasonography or the much less enlightening ones of the not more comfortable hystero-graphy, direct visualization of uterine or endometrial abnormalities offers a great amount of accurate information to the examining physician [3].

In our series, nearly 70% of the patients were referred from the Assisted Reproduction Unit of our hospital, initially after 3 or more failures of IVF, at the stage of implantation. As the usefulness of diagnostic hysteroscopy in providing information pertaining to their pro-

blems became apparent, they soon elected to have the procedure done *before* attempting IVF in patients even remotely suspected for intrauterine pathology [4].

The most common abnormal finding in our series was the presence of intrauterine adhesions, responsible for secondary amenorrhea or oligomenorrhea, also present in many cases of failed IVF, habitual abortion and infertility [5]. On the other hand, the discovery of unsuspected submucosal fibroids as well as endometrial polyps or hyperplasia gave an adequate explanation as to the causes of abnormal uterine bleeding, abortion or infertility [6].

Minor complications occurred in only 6.1% of our cases, which is well within the limits reported by other authors. Nine patients (1.3%) had vagal reaction and 33 (4.8%) required general anesthesia due to either cervical stenosis warranting dilatation (12 cases) or patient nervousness (21 cases - 3.1%). Major complications or fatalities did not occur in our series.

Conclusions

Diagnostic hysteroscopy is a direct, relatively simple, safe and patient-friendly way of investigating problems related to uterine and endometrial functional status. It easily provides more precise information than any other method used for this purpose, such as D and C, ultrasounds and hystero-graphy. It proved particularly useful in helping IVF teams understand the reason for many failures. The 2.7 mm hysteroscope offers the possibility of performing this procedure on an outpatient basis, as no dilatation and, therefore, no anesthesia is needed.

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