



## Office hysteroscopy

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**OBJECTIVE(S)** : To establish the benefits of office hysteroscopy in women suffering from various gynecological disorders and to prove that a conventional hysteroscope rather than an office hysteroscope can be used for this purpose.

**METHOD(S)** : Between January 2003 and October 2003, 207 patients attending the gynecological outpatient department at a government hospital for various problems were selected for the procedure of office hysteroscopy. The procedure was carried out using a conventional 30 degree 4 mm fore oblique hysteroscope.

**RESULTS** : The indications for the procedure were abnormal uterine bleeding in 33.33%, infertility in 52.1%, postmenopausal bleeding in 4.34%, tamoxifen therapy for breast cancer in 8.21% and post-abortal amenorrhoea in 0.96%, and abnormal findings were seen in 43.47%, 50.92%, 44.44%, 35.29% and 100% respectively. The procedure was well tolerated by most patients and there was no significant complication.

**CONCLUSION(S)** : Ninety-eight out of 207 patients (47.34%) had positive findings making this investigation a necessary tool in the armamentarium of a modern gynecologist.

**Key words** : office hysteroscopy, hysteroscopy

### Introduction

Although hysteroscopes have been available for the past couple of decades they have been sparingly used<sup>1</sup> mainly because satisfactory visualization of the uterine cavity was a problem due to the absence of camera, monitor and hysteroscope and at the same time lack of training in this field during postgraduate courses frustrated operators who were ready to give up the procedure. With the introduction of these instruments and accessories for operative hysteroscopy the procedure is gaining popularity. However, in most cases it is being done under general anesthesia. General anesthesia requires the patient to be admitted and be exposed to the risks of anesthesia. To avoid anesthesia and hospital

admission, to reduce the load on over stretched bed occupancy and precious operation theater time, and to reduce inconvenience of the patient wanting to get back to her daily routine quickly this procedure is now done as a office procedure on outpatient basis using a conventional hysteroscope.

### Material and Methods

Between January 2003 and October 2003, 207 patients attending our gynecological outpatient department were selected for the procedure. The indications were abnormal uterine bleeding, menorrhagia, infertility, postmenopausal bleeding, increased endometrial thickness in cases of breast cancer being treated with tamoxifen, recurrent abortion, postabortal amenorrhoea, and foreign body in the uterus. The patients were counselled for the procedure and given a choice to get it done under general anaesthesia or as an office procedure. Most of the patients opted for the office procedure since it avoided admission and anesthesia. Consent was taken and the patient given a suitable date. Routine

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hematological and biochemical investigations were done to rule out any debilitating disease and ultrasonography was done when necessary. The procedure was carried out in a room designated for minor operative procedures.

All the women with an indication for hysterectomy were included in the study. There was no exclusion criteria if the women needed hysteroscopy.

#### Instrumentation

Conventionally office hysteroscopy is done with scopes designed for this purpose such as the flexible fiber hysteroscope or the Bettocchi hysteroscope, which are thinner and less traumatic. These are expensive instruments and sometimes difficult to procure in a government hospital setting. In this series the procedure was done using a conventional 30-degree fore oblique 4 mm telescope. A double flow sheath was employed unless the cervix could not be dilated adequately to accommodate it, in which case a single flow sheath was used. A double flow sheath was preferred as the blood and debris get continuously removed giving better vision.

The other instruments used in the procedure included a single chip camera, medical monitor, Hamou endomat, and xenon light source. Saline was used as the distending medium.

#### Procedure

The patient was placed in the lithotomy position after confirming necessary consent, cleansed, and draped. Continuous monitoring of pulse and blood pressure was done with a medical monitor. Paracervical block was employed in all (98/207) nulliparous women. The cervix was dilated to 5/8 or 6/9 mm using Hawkin-Ambler dilators. Parous women needed no cervical dilatation and hence no paracervical block. No sedation or NSAID was given. The hysteroscope was introduced with saline flowing and hysteroscopy was done. At the end of the procedure an endometrial biopsy was taken if indicated.

#### Results

Table 1 gives the indications for the procedure and the number with abnormal findings. After cleansing and draping the procedure took around 2-3 minutes for the hysteroscopy and about 1 minute for the endometrial biopsy when required. The patients were evaluated for pain on a score of 1-10 and the results are shown in Table 2. The pain after the procedure lasted for about 15 minutes

There were no significant complications of the procedure but the procedure had to be abandoned in two cases due to failure of dilatation and in one case who was a known hypertensive due to abnormal rise in blood pressure.

**Table I. Indications with normal and abnormal findings.**

Indication	Number	Findings	
		Normal	Abnormal
Menorrhagia and abnormal uterine bleeding	69 (33.33)	39 (56.52)	30 (43.47)
Infertility patients scheduled for IVF-ET	108 (52.17)	53 (49.07)	55 (59.92)
Post-menopausal bleeding	09 (4.34)	05 (55.55)	04 (44.44)
Tamoxifen therapy	17 (8.21)	11 (64.70)	06 (35.29)
Foreign body in the uterus	01 (0.48)	02 (0)	01 (100)
Post-abortal amenorrhoea	02 (0.96)	0 (0)	02 (100)
Recurrent abortion	01 (0.48)	1 (100)	0 (0)
Total	207 (100)	109 (52.76)	98 (47.38)

Figures in brackets indicate percentages.

**Table 2. Pain perception during the procedure on a scale of 1 to 10 .**

Score	Number (Percentage)
2-3	120 (57.97)
4-5	60 (28.98)
6-7	20 (09.66)
8-9	07 (03.38)
Total	207 (100)

## Discussion

For various gynecological disorders such as abnormal uterine bleeding, menorrhagia, infertility, recurrent abortion, postmenopausal bleeding and patients on tamoxifen therapy dilatation and curettage (D and C) was done traditionally. But now with the availability of hysteroscopy direct visualization of the uterine cavity can be done and hitherto undiagnosed conditions such as endometrial polyps, subnucous fibroids, intrauterine adhesions and uterine abnormalities can be easily diagnosed<sup>2</sup>. Further, hysteroscopy now being done as an office procedure, hospital admission and anesthesia are avoided thus making it extremely patient friendly. Indeed whenever there is an indication for D and C, hysteroscopy is an alternative and the diagnostic accuracy of hysteroscopy is far greater than that of D and C<sup>3</sup>.

In our series the various indications for the procedure were menorrhagia and abnormal uterine bleeding in 69 (33.33%), infertility in 108 (52.17%), post menopausal bleeding in 9 (4.34%), tamoxifen therapy for breast cancer with endometrial thickness > 8 mm on ultra-sonography in 17 (8.21%), foreign body in the uterus and recurrent abortion in 1 case each (0.48%) and post abortal amenorrhoea in 2 cases (0.96%). In a review of out-patient hysteroscopy practice the indications for hysteroscopy included menorrhagia (45%), intermenstrual or post-coital bleeding (10%), irregular menstruation (9%), subfertility (6%), and recurrent miscarriage (4%)<sup>4</sup>. In the present series the cases of infertility were much higher as we are running a invitro fertilization (IVF) center and hysteroscopy was routinely done as a preliminary step before IVF and embryo transfer. All the 108 infertility patients in our series belonged to this category.

It was found that of all cases of menorrhagia and abnormal uterine bleeding 30 (43.47%) had abnormal findings in the form of submucous fibroids, endometrial polyps, intrauterine

adhesions, and in one case endometrial carcinoma. Thirty-nine patients (56.52%) had normal findings thus excluding organic lesions of the uterus. On reviewing the literature benign polyps are seen in 5-10% patients with abnormal uterine bleeding<sup>4</sup> and 20-25% of women presenting with postmenopausal bleeding<sup>5,6</sup>.

Hysteroscopy is recommended for all patients undergoing IVF-ET for diagnosing conditions of uterine cavity, which could reduce success rate<sup>7,8</sup>. Of the 108 patients of infertility undergoing hysteroscopy as a preliminary step before being taken up for IVF- ET 53 (49.07%) showed normal findings and 55 (50.92%) showed abnormal findings. Of those showing abnormal findings 16 (14.81%) had organic uterine lesions such as submucous fibroids, endometrial polyps or significant intrauterine adhesions and in 39 patients (36.11%) significant adhesions around tubal ostia were noted. This high percentage of periostial adhesions can be explained by the fact that hysteroscopy was done as a preliminary step before IVF and most of these patients had diseased or blocked tubes. Intrauterine adhesions have been reported in 3-15% of women with primary infertility and 30-40% of women with secondary infertility<sup>9</sup>. Congenital uterine anomalies like bicornuate uterus or septate uterus occur in 5% of women with subfertility or recurrent miscarriage<sup>4</sup>.

Of the 9 cases of post-menopausal bleeding 5 (55.55%) had normal findings and 4 (44.44%) had abnormal findings mainly in the form of endometrial polyps.

Cases of breast cancer on tamoxifen therapy can develop endometrial polyps / hyperplasia and hence these patients are on regular follow up with ultrasonography. If the endometrial thickness is abnormal or if the patients have post-menopausal bleeding they are required to undergo hysteroscopy and endometrial biopsy<sup>10</sup>. Seventeen such patients were taken up for hysteroscopy and of these 6 (35.29%) showed abnormality in the form of endometrial polyps / hyperplasia and 11 (64.70%) had normal findings.

Postmenopausal endometritis is reported to occur in 75% of women with postmenopausal bleeding<sup>6</sup>. Endometrial carcinoma can be seen in 0.6 to 0.8% of women attending the out-patient hysteroscopic clinic and rises to 5-7% in postmenopausal women<sup>6</sup>. In our series there was only one case of endometrial cancer.

Two cases of postabortal amenorrhea showed extensive intrauterine adhesions and one case of recurrent abortion showed normal findings. One case of foreign body in the uterus diagnosed by sonography showed fetal bones of a previous midtrimester pregnancy loss on hysteroscopy.

The procedure was well tolerated by most of the patients, inspite of a thicker conventional hysteroscope being used. The patients were rated on a pain scale of 1-10. One hundred and twenty patients (58 %) had minimal discomfort with pain score of  $\leq 3$ , 60 (28.9%) had mild to moderate pain with pain score of 4-5, 20 (9.66%) had moderate pain with pain score of 6-7, and only 7 (3.38%) had significant pain with pain score of  $>7$ . Over all 86.9% found the procedure satisfactory and were willing to have a repeat similar procedure if required. Similar good patient acceptability and minimal pain has also been found in another study <sup>11</sup>.

In our series there were no significant complications and the procedure was well tolerated by most of the patients proving that office hysteroscopy can be carried out with a conventional hysteroscope where procurement of a hysteroscope especially designed for the office procedure is not available. In our study 47.34% (98/207) had positive findings making this investigation a necessary tool in the armamentarium of modern gynecologist.

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