

Diagnostic Hysteroscopy in Gynaecological Practice

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Objective: To evaluate the value of diagnostic hysteroscopy in improving the accuracy in investigating uterine, endometrial and endocervical pathology. **Design:** Performing diagnostic hysteroscopy in 61 patients and evaluating the results and the safety of the procedure. **Subjects:** Patients falling in the inclusion criterion for diagnostic hysteroscopy admitted in Gynae-III Services Hospital Lahore. **Results:** Endometrial polypi were found in 11.47% and submucous fibroids in 8.19% patients. Endometrial cancer was detected in 1 patient. There were no complications of the procedure. **Conclusion:** Outpatient hysteroscopy provides early investigation for patients with different gynaecological complaints. **Key words:** Diagnostic hysteroscopy

Uterine curettage is often performed to investigate patients with abnormal uterine bleeding. It is essentially a random sampling of the endometrial with the possibility of error if the lesion is small or in accessible. The presumption that failure to obtain tissue at curettage indicates endometrial atrophy & an absence of pathology is not always wise; currently studies emphasize the accuracy of hysteroscopy in establishing a diagnosis of intra uterine pathology.

Hysteroscopic inspection of the uterine cavity offers sample out patient method for investigating uterine, endometrial or endocervical pathology. Tissue biopsy allows histological confirmation of the diagnosis.

The purpose of this study was to evaluate the value of diagnostic hysteroscopy in improving the accuracy in investigating uterine, endometrial and endocervical pathology. The safety of the procedure, the complications and morbidity of the procedure was also evaluated.

Material and method:

The study was conducted in gynae unit-III in Services Hospital Lahore from March 2003 to September 2003. A total of 61 patients were included in the study. Patients were selected through the out patient department. Inclusion criterion was patients who complained of Menorrhagia, intermenstrual bleeding, Dysmenorrhoea and postmenopausal bleeding. Evaluation of the patients was carried out on the basis of history, general and systemic examination as well as pelvic examination. A cervical smear was taken in most of the patients either with an ayre's spatula or cytobrush. As a preliminary to general anesthesia a hemoglobin estimation and urine analysis was carried out. Blood sugar level, ECG and X-Ray chest was carried out in postmenopausal women. Fitness for general anesthesia was taken prior to surgery.

Method: All patients were explained about the procedure, the possible complications including Laparotomy. The patients were asked to void before shifting to the operation theater. Intravenous line was taken with a 16 gauge cannula and general anesthesia was induced with injection Propofol 4mg / Kg body weight and maintained on nitrous oxide and oxygen. Patient was placed in dorsal lithotomy position. A bimanual examination under anesthesia to

determine the position of the uterus was mandatory. The vulva and vagina were cleaned with pyodine and patient draped. The cervix was exposed with sims speculum and anterior lip grasped with tenaculum if there was need cervix was dilated upto hegar's number⁶.

With the light cable attached the telescope in its sheath were inserted through the external os and slowly advanced along the cervical canal. The canal was examined as the instrument advanced and the uterine cavity visualized once internal os was approached and hence uterine cavity entered under direct vision Carbon dioxide was delivered at a flow rate of not more than 100 mls under low pressure from the Hysteroflator.

A systematic examination of the uterine cavity was performed the central fundus examined and each tubal ostium in turn visualized the remainder of the uterus then observed any lesion noted dealt accordingly.

At the conclusion the hysteroscope was simply removed. Patient was cleaned and shifted to recovery room after recovery from anaesthesia. Her pulse and blood pressure were observed 6 hours and discharged on the same day if no complications of anaesthesia or surgery were present; and counseled for follow up in the outpatient.

Results

Hysteroscopy was carried out in a total of sixty-one patients in one year. The youngest was 21 years of age and oldest 58 years.

Table 1. Indication for hysteroscopy

Indication	n=	%age
Abnormal uterine bleeding	32	52.45
Postmenopausal bleeding	09	14.75
Menorrhagia	08	13.1
Oligomenorrhoea	04	6.55
Missing IUCD's	03	4.9
Recurrent abortions	03	4.9
Secondary Amenorrhoea	02	3.2

The most common indication was abnormal uterine bleeding in 52.45% and was followed by postmenopausal bleeding in 14.75% of the patients. The reasons for hysteroscopy are summarized in table I. Abnormal uterine

bleeding was the most common indication in 52.45% of patients, followed by postmenopausal bleeding in 14.75% and Menorrhagia in 13.1%

Table II: Evaluation of hysteroscopic findings

Hysteroscopic findings	n=	%age
Normal	28	45.90
Hyperplastic endometrium	08	13.11
Atrophic endometrium	07	11.47
Endometrial Polyps	07	11.47
Submucous fibroids	05	8.19
Cervical polyps	03	4.9
Synechiae	02	3.27
Endometrial carcinoma	01	1.63

Polypi are a common finding, which can be missed on D & C alone.

Table II shows the hysteroscopy findings in all patients. 45.90% patients had no demonstrable pathology whereas 13.11% had hyperplastic endometrium and atrophic endometrium in 11.47% of postmenopausal women, endometrial polyp in 11.47%, cervical polyp in 4.9%; submucous fibroid in 8.19%, Synechiae in 3.27% and endometrial carcinoma was detected in 1.63%. This table shows that abnormalities were not seen below 35 years of age. Polyps and Submucous fibroids may be missed by conventional methods of endometrial investigation. Some of these patients with polyps and fibroids required elective admission for surgery and information about the number, size, and position of the lesions facilitates their removal.

Table III summarizes the hysteroscopic in different indications. It shows that in patients with abnormal uterine bleeding 53.12% had normal endometrial, 18.75% had endometrial hyperplasia, 15.62% had endometrial polypi and 6.25% each had cervical polypi and Submucous fibroids. In the group of postmenopausal women 77.77% had atrophic endometrium, 11.11% each had endometrial carcinoma and cervical polypi. Biopsy material suitable for pathological assessment was obtained in most cases except when endometrium was atrophic.

Similarly hysteroscopic findings are correlated in this table against the indications. This table confirms that some of the findings would have indeed be missed if hysteroscopy had not been performed. Table IV shows comparison of hysteroscopic findings in different series.

In abnormal uterine bleeding the incidence of polypi was commonest, 30% in Loffler²¹, 18.12% in Jong's¹⁶, 16.98% in Creschini, 25% in Prevedowarkis²⁵ 20% Newman's¹⁸ and 16.39% in the present series. The comparison shows that polypi and fibroids are very effectively found on hysteroscopy and helps in diagnosis and further management.

The rate of endometrial carcinoma detected in these series is 6% in Loffler's, 1.35% in Motashaw, 6.25% in Jong's and 1% in this series. No complications attributable to the procedure occurred in this series. Side effects were transient. 2 patients complained of abdominal pain, and 2 of shoulder tip pain.

Table III: Correlation between indications and hysteroscopy findings

Indication	n=	Hysteroscopic Findings															
		Normal		Hyper Plastic Endometrium		Submucous Fibroids		Atrophic Endometrium		Endometrial Polyp		Cervical Polyp		Endomet-rial Cancer		Synechiae	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Abnormal uterine bleeding	32	17	53.1	6	18.7	2	6.25	-	-	5	15.6	2	6.25	-	-	-	-
Postmenopausal Bleeding	9	-	-	-	-	-	-	7	7.77	-	-	1	11.11	1	11.11	-	-
Missed IUCD's	3	3	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recurrent Abortions	3	3	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Menorrhagia	8	1	12.5	2	25	3	3.75	-	-	2	-	-	-	-	-	1	50
Secondary Amenorrhoea	2	1	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table IV: Results of different studies compared

Findings	Loffler	Jong 90-	Creschini 92	Prevedowarkis 93	Newman 94	Present Study
Normal	11.1%	45%	-	-	-	45.90%
Polyp	30%	18.125%	16.98%	25%	20%	16.39%
Fibroid	21%	10.62%	13.20%	-	18.8%	8.19%
Hyperplasia	16%	-	-	57%	4.7%	13.11%
Cancer	6%	6.25%	7.54%	17.85%	-	1.63%
Endometritis	3%	-	-	-	-	-
Uterine Malformation	-	3.125%	60.37%	-	-	-
Synechiae	-	0.62%	-	-	-	3.27%
Metapiasia	-	-	-	-	55.2%	-
Atrophy	-	-	-	-	-	13.11%

Discussion:

Diagnostic hysteroscopy is performed under local anaesthesia these days for which pre procedure counseling, cooperation of the patient and ready availability for general anaesthesia is essential.

This study was conducted using general anaesthesia as most patients showed anxiety for a surgical procedure more over general anaesthesia was easily available.

The most common indication for hysteroscopy was abnormal uterine bleeding. The most common cause for abnormal uterine bleeding in this study was endometrial hyperplasia followed by endometrial polyp. Coeman and Newman showed an incidence of 26.7% and 93% in their series. Hysteroscopic removal of polypi and Submucous fibroids reduced the duration of convalescence.

In patients with postmenopausal bleeding the most common hysteroscopy finding was endometrial atrophy that is 77.7%, endometrial carcinoma was detected in one patient. The incidence of polypi in postmenopausal women in this series was 11.11%. Pinion (1994) and Sculpher (1993) discusses economic advantages of transcervical endometrial resection versus hysterectomy for the treatment of Menorrhagia. In this series in patients with recurrent abortions no abnormality was found however Raziel in a series of 106 patients with recurrent abortions rates hysteroscopy superior to hysterosalpingography in terms of sensitivity and specificity. In three patients displaced intrauterine contraceptive devices were successfully retrieved. No complications of the procedure were seen in this study however abdominal cramps and shoulder tip pain were seen. A higher rate of complication has been reported with hysteroscopic surgery. Parkin (1995) reports a death following endometrial resection.

Conclusion:

Diagnostic hysteroscopy is a simple cost effective procedure which has established superiority over blind curettage and hysterosalpingography in the diagnosis of intrauterine lesions.

Operative hysteroscopy is gaining popularity due to reduction in operative and convalescence time.

It is recommended that diagnostic hysteroscopy should be used more widely in clinical practice as only then operative hysteroscopy can be mastered.

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