

Hysteroscopy in Evaluation of Abnormal Uterine Bleeding

Guin Gita · Sandhu Surpreet Kaur · Lele Arvind ·
Khare Shashi

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Abstract One-third of all gynaecological consultations are because of abnormal uterine bleeding (AUB). This proportion rises to more than 2/3rd when peri & post menopausal women are considered. In normal to 12 week size uteri, the cause of abnormal bleeding often remains obscure.

Objectives (S) Clinical and hysteroscopic evaluation of the cervical canal & uterine cavity of 100 women with AUB to evaluate various causes of AUB in the study population.

Method (S) 100 women with AUB and uterine size normal to 12 weeks pregnancy were subjected to clinical & hysteroscopic examination. The cause of bleeding was evaluated.

Results Menorrhagia (30%), menometrorrhagia (16%), oligomenorrhea (16%) and postmenopausal bleeding (2%) were some of the indications for hysteroscopy. Intrauterine pathology was diagnosed in 74% of cases. Hyperplastic endometrium (30%) and mucus polypi (28%) were the most frequent findings. 13% of the cases had multiple

finding. A surprising 7% had IUCD in their uteri without their knowledge, while bony spicules was found in 1 patient. Both patients with post menopausal bleeding had atrophic endometrium.

Conclusion (S) Hysteroscopy can be easily learnt. It gives a clue to diagnosis in AUB and can reduce the burden of hysterectomy in many cases which can be treated by simple procedures.

Keywords Abnormal uterine bleeding · Hysteroscopy · Menorrhagia · Oligomenorrhea · Amenorrhoea

Introduction

One-third of all gynaecological consultations are because of abnormal uterine bleeding (AUB). This proportion rises to more than 2/3rd when peri & post menopausal women are considered. In normal to 12 week size uteri, the cause of abnormal bleeding often remains obscure.

Hysteroscopy provides a simple & easy method for visualization of the cervical canal & uterine cavity. It is also used for treating different kinds of benign pathologies.

Diagnostic hysteroscopy and simple operative hysteroscopy can usually be done in an office setting. The sensitive innervations in the uterus start from the myometrium out, whereas the endometrium and any fibrotic tissue present are not sensitive. This is the rationale ensuring that the hysteroscopic procedure can be performed without any analgesia or anesthesia [1].

Guin G. (✉), Associate Professor ·
Sandhu S. K., Senior Resident · Lele A., Professor ·
Khare S., Professor & Head
Department of Obstetrics and Gynaecology, Government N.S.C.B.
Medical College, 436, Kamla Nehru Nagar, Garha Road,
Jabalpur, MP 482 002, India
e-mail: gita_guin1966@yahoo.in

Material and Methods

This is a prospective cross sectional study carried out in the Gynaecology Department of N.S.C.B, Medical College & Hospital, Jabalpur (M.P.) between 1st January to 31st December 07. A total of 12,386 women attended the Gynaecology OPD during this period. Of these 3259 had some complaints relating to their menstrual period giving an incidence of 38%.

Women in reproductive & postmenopausal age with AUB who attended the OPD on Monday, Wednesday and Thursday during this period and with uterine size up to 12 weeks pregnancy were subjected to a thorough physical examination and routine investigations like Hb%, ABO & Rh, blood sugar, urine routine & microscopy followed by hysteroscopy after obtaining post counseling informed consent. The procedure was performed in the minor operation theatre under sedation and paracervical block. Ethical approval was obtained from the college research committee. Women excluded from the study were:

- Pregnancy/Abortions/Ectopic pregnancy
- Uterine and cervical infections and PID
- STD's and vaginitis
- Lower genital tract malignancies
- Medical contraindications to any invasive procedures

Observation (S)

A total of 100 patients were included in the study. The mean age of the patients was 39.74 years. 22% of the patients were in the 36–40 years age group followed by 20% in 41–45 years. (Table 1).

4% of the patients were nulliparous, 6% uniparous & the rest were multiparous. The mean parity was 3.1.

In the present study, menorrhagia (30%) was the most frequent indication for hysteroscopy. 16% of patients presented with menometrorrhagia and oligomenorrhea each.

Table 1 Distribution of patients according to age ($n = 100$)

Age distribution	Percentage (%)
<20 years	2
21–25 years	8
26–30 years	8
31–35	18
36–40	22
41–45	20
46–50	14
51–55	6
56–60	2

Only 2% patients presented with post menopausal bleeding (Table 2).

Majority of the patients with excessive bleeding reported within a year of onset of complaints, 22% within the first 6 months and 46% within the next 7–12 month. Women with oligomenorrhea usually presented late, their average duration of complaints being 12.5 months.

Of all women with a normal sized uteri ($n = 49$), majority presented with oligomenorrhea ($n = 14$) or hypomenorrhoea ($n = 10$), while those having bigger uteri always presented with some pattern of increased bleeding (Table 2).

74% of the 100 women subjected to hysteroscopy had intrauterine pathology. Of these, 13% of patients had more than one finding. Most common finding was hyperplastic endometrium (30%) followed by mucus polyp (28%). The presence of an unknown IUCD in uterine cavity was an unexpected finding in 7% cases, while in 1 woman fetal bones impacted in uterine wall left behind from a premarital & unconfessed MTP was discovered. (Tables 3, 4). Only 3 patients complained of shoulder blade pain that could be managed symptomatically.

Discussion

This is a prospective cross sectional study carried out in the Department of Gynaecology, NSCB Medical College & Hospital, Jabalpur (MP). 100 women with AUB, without any contraindication to hysteroscopy, were subjected to the procedure.

The mean age of patients in our study (39.74 years) is comparatively higher than in the available literature. About 83% of the patients belonged to low or lower middle class in this study, a class with lower life expectancy, plagued by poverty and neglect, few older women report to hospital and most of them are diagnosed with lower genital malignancies. Shwarzler [2] studied a total of 104 patients with age varying from 26 to 79 years. Tahir [3] studied 400 women all above age of 35 years. Gianninoto [4] performed diagnostic hysteroscopy in 512 women with complaints of AUB, age ranging from 38 to 80 years and with mean age of 63 years.

Menorrhagia as the primary indication for hysteroscopy was reported in 49.6% by Sciarra and Valle [5] and 37.5% by Hamou [6] while postmenopausal bleeding (43.7%) and abnormal perimenopausal uterine bleeding (56.3%) are the main indications in the study of Pasqualotto et al. [7]. Incidence of positive findings on hysteroscopy ranges from 52% in studies of Baggish and Barbot [8] and Schwarzler [2] to 66% in Bhattacharya [9] and 74% in the present study to as high as 94.6% in Hamous' [6] study. The more stringent the patient selection criteria and the more

Table 2 Type of complaints versus uterine size

Type of complaints	n (100)	Size of uterus				
		Normal Size	Bulky	6 to 8 weeks	8 to 10 weeks	>10 weeks
Menorrhagia	30	8	10	4	4	4
Metrorrhagia	10	3	2	1	3	1
Menometrorrhagia	16	4	6	3	2	1
Polymenorrhoea	10	4	6	0	0	0
Oligomenorrhoea	16	14	2	0	0	0
Polymenorrhagia	6	4	2	0	0	0
Hypomenorrhoea	10	10	0	0	0	0
Post menopausal bleeding	2	2	0	0	0	0

Table 3 Hysteroscopic findings in patients of aub versus type of complaints

Type of complaints	Hysteroscopic findings						
	Hyperplastic	Polyp	Adhesion	Fibroid	CuT	Atrophic	Normal
Menorrhagia	12	12	0	2	4	0	0
Metrorrhagia	6	2	0	6	1	2	2
Menometrorrhagia	8	6	2	4	0	0	2
Polymenorrhoea	0	2	0	4	2	0	4
Oligomenorrhoea	0	0	2	0	0	10	6
Polymenorrhagia	2	6	0	0	0	0	6
Hypomenorrhoea	2	0	0	0	0	4	6
Post menopausal bleeding	0	0	0	0	0	2	0
Total	30	28	4	16	7	18	26

Table 4 Distribution of patients according to hysteroscopic findings (n = 100)

Hysteroscopic findings	Percentagec (%)
Hyperplastic	30
Polyp (Mucus)	28
Fibroid	16
Atrophic	18
Adhesion	4
CuT	7
Bones	1
Normal	26

emaculate the procedure, the greater is the likelihood of a pathological causative lesion being found. Also in women with seemingly disturbing symptoms of AUB as to warrant a hysteroscopy, a negative finding may be reassuring both to the patient and her gynaecologist contemplating conservative treatment, particularly in the perimenopausal and postmenopausal ages.

Incidence of endometrial polyps has ranged from 9.1% in Hamous' [6] series to 28% in the present study and 45.9% in Pasqualotto [7] series. These patients can be

easily treated hysteroscopically thereby reducing the burden of hysterectomy and its consequent effect on ovarian function even when they are spared the surgeons' knife. This drastically reduces hospital workload and is economical.

The incidence of hyperplastic endometrium in patients of AUB in the present study is 30%; as the age of the patient advances, there is likely to be a greater number of patients with malignant conditions as is seen in Gianninos' [4] series (16.4% with carcinoma) where age ranged from 38 to 80 years. All our patients were subjected to hysteroscopic directed biopsy and further treatment planned according to the histological type of hyperplasia. It reduced the need for conventional curettage, lowered cost and improved patient satisfaction.

The incidence of submucosal fibroids ranged from 16% in our study to 28% in Schwarzlers' [2] study. Ten of our patients could be treated by simple polypectomy, further reducing the burden of hysterectomy.

The finding of atrophic endometrium (18% in present study, 6% in Sciarra and Valle [5], 14.6% in Hamou et al. [6], 12.6% in Valle [10]) is particularly reassuring in women with postmenopausal bleeding. Directed biopsies of suspicious areas even when the endometrium looks

atrophic can drastically exclude the risk of endometrial carcinoma.

4% patients who had intrauterine adhesions in the present study (12% in Hamou et al. [6], 8.57% in Cicinelli et al. [11]) could be treated by adhesiolysis.

In none of the previous studies, unknown IUCD was reported as a cause of AUB. Probably the practice of inserting IUCD's in women undergoing MTP or post delivery who are not willing for any contraception is prevalent in many hospitals in this area and could be a fallout of the target oriented approach to family planning. Such a practice should be abandoned & greater stress laid on counseling & voluntary acceptance of contraception. This could have prevented these 7 women from the miseries of excessive menstrual flow and its consequences. However, these women could have been diagnosed by a preliminary ultrasonography. Hysteroscopy, though facilitating simple operative procedures, cannot be recommended as a first line diagnostic tool in AUB.

The finding of bones in the uterine cavity not only helped in diagnosing the cause of the womans' menstrual problems but also provided great help in treating her infertility.

30% of the patients could be treated by simple procedures like removal of IUCD's or impacted bone, adhesiolysis in Ashermann's syndrome or polypectomy. Both the patients with postmenopausal bleeding had atrophic endometrium confirmed on histopathological examination and were managed conservatively. Hysteroscopic guided biopsy of hypertrophic endometrium provided accurate diagnosis and helped in planning further management.

Conclusion (S)

Hysteroscopy is an important tool in the evaluation of AUB. Where the size of uterus is normal to 12 weeks, it provides valuable information which can otherwise be

missed. The skill of hysteroscopy can be easily acquired and can be performed in an OPD setting. It is well tolerated economical and has good patient acceptability. When combined with endometrial biopsy and pelvic ultrasonography, it can establish an accurate diagnosis in a majority of patients thereby reducing the burden of hysterectomy.

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