



HYSTEROSCOPY IN AUB AND ITS HISTOPATHOLOGICAL CORRELATION.

Gynaecology

Vasudha Sawant* Associate Professor, MS Obstetrics & Gynaecology *Corresponding Author

Shamim Bano
Sami Khan

PG resident, MS Obstetrics & Gynaecology

KEYWORDS

INTRODUCTION

Although uterine bleeding is a normal physiologic episodic occurrence for most women, its characteristics nevertheless vary considerably. The broad range of normal variation causes difficulty in identifying abnormal patterns. The problem is that uterine bleeding has a wide range of diagnostic possibilities and confusion is generated when review and reports fail to outline the diagnostic evaluation of the patient who presents with abnormal uterine bleeding patterns.

Goals of clinical management are primarily dependent upon attaining a correct etiological diagnosis. The history, physical and pelvic examination attempt to determine the site of the bleeding and its source. Information gathered from this will suggest what direction the investigation would take. Previously Dilatation and Curettage and Ultrasonography were the most common investigations employed in the evaluation of the causes of abnormal uterine bleeding¹. AUB accounts for two third of hysterectomies².

Dilatation and Curettage is a blind procedure with 2% complication rate³ and the endometrium has to be sent to the Pathologist to study histological patterns and for the report. The co-operation of the Pathologist is important. Ultrasonography clearly depicts the uterine contour and the status of the ovary, but fails to provide adequate information regarding the endometrium.

Hysteroscopy has ushered a new era in the evaluation of abnormal uterine bleeding. By direct visualization of the uterine cavity it is able to pin point the etiology in the majority of the cases. It can accurately detect endometrial hyperplasia and aids in the early diagnosis of endometrial carcinoma and uterine polyps.

METHOD

The study was carried out in the Department of Obstetrics and Gynecology at DY Patil Hospital and Research Institute, Kolhapur, India, after ethical clearance from institutional ethical committee. 50 patients of age group 20-55 years were included, who were admitted with the history of abnormal uterine bleeding; excluding any demonstrable pelvic pathology like cancer of cervix, vagina or endometrium on clinical examination and active pelvic infection. Detailed history, examination and investigations were done.

After informed consent hysteroscopy was performed in Operation Theater under intravenous anesthesia. Ringer lactate was used as a distending medium in hysteroscopy. Systemic examination of uterine cavity was performed and internal OS and cervical canal visualized and finding noted. Finally, dilatation and curettage was performed and tissue collected in formalin and sent for histopathological examination.

The findings on hysteroscopy and histopathologic examination were correlated. Data were recorded on a predesigned proforma.

RESULTS

This study was conducted on 50 patients. In 50 patients, who had abnormal uterine bleeding, hysteroscopy was performed along with curettage and tissue obtained was sent for histopathological examination.

Age group of the patients ranged from 20-55 years and the most common age group was 30-39 years (48%). 56% of patients were

parous, 38% were grand multiparous and rest 6% was nulliparous. Most of the patients (58%) presented within 1 year of the onset of symptoms.

Menorrhagia was the commonest presenting symptom in this study. 58% patients presented with this symptom. The next common presentation was polymenorrhoea (24%) and metrorrhagia (18%).

Table No 1: Age incidence

Age Group	No of Patients	Percentage
20 – 29	2	4
30 – 39	24	48
40 – 50	22	44
> 50	2	4

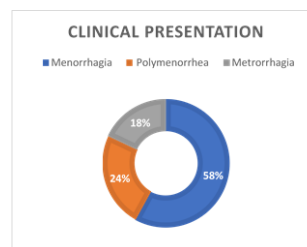


Fig 1: Pie diagram showing clinical presentations.



Fig 2: Pie chart showing duration of symptoms

Table No 2: Findings of Hysteroscopy

Findings	No. of Patients	Percentage
Normal	27	54
Endometrial Hyperplasia	10	20
Endometrial Polyps	7	14
Submucous myoma	2	4
Endometrial Atrophy	3	6

Table No 3: Findings of Endometrial Histopathology

Findings	No. of Patients	Percentage
Normal	30	60
Endometrial Hyperplasia	10	20
Simple	5	
Cystoglandular	4	
Adenomatous	1	
Endometrial Polyps	3	6
Submucous myoma	1	2
Endometrial Atrophy	4	8
Endometritis	1	2

Table No 4: Comparison of Validities

	Hysteroscopy in %	Dilatation and Curettage in %
Sensitivity	91.66	79.16
Specificity	96.15	96.15
PPV	95.65	95.65
NPV	92.59	83.33
Accuracy	94	88

DISCUSSION

AUB is an important and common problem encountered in gynaecological practice. Endometrial and uterine abnormalities such as leiomyoma, polyps and hyperplasia are more common than previously thought. With the aim of solving the problem, a precise diagnostics is required. Diagnostic curettage has been the method of choice to diagnose endometrial abnormalities⁷ for many years but hysteroscopy combined with histologic examination subsequently became the “gold standard” for such evaluation⁷.

The age group in this study was between 20 - 55 years and maximum incidence was between 30-39yrs. Panda⁶ found that maximum age incidence was between 35-45yrs in range between 25-70yrs. In Gianninoto's⁷ series, age range was 38-80yrs and commonest incidence was between 30-45yrs. Trotsenburg⁸ reported maximum age incidence between 41-50years. Valson et al⁹ also reported maximum age of incidence between 41 – 50 years while Singh S et al¹⁰ reported the maximum age of incidence to be around 31- 40 years.

The commonest presenting complaint in this series was menorrhagia (58%) followed by Polymenorrhea (24%) and metrorrhagia (18%). Panda's⁶ series had 60% cases of menorrhagia followed by Polymenorrhea and Metrorrhagia. Valson et al⁹ also documented menorrhagia (44%) to be the most common presenting complain.

In this study, abnormal findings on hysteroscopy were found in 23 patients (46%) while in the remaining 27 patients (54%), no abnormality was detected.

Table No 5: Normal and Abnormal findings at Hysteroscopy in various series and comparison of accuracies

Sr. No.	Author (Year)	No. of Cases	Normal (%)	Abnormal (%)	Author	Accuracy	Misinterpretation
1	Wamsteker (1984)	199	41.5	58.5			
2	Gimpelson & Rappold (1988)	276	60	40	Author	Accu racy	Misinte rpretati on
3	Loffer (1989)	91	48.66	51.44	Baggish (1979)	87.5	12.5
4	Sheth (1990)	51	44	56	Barbot (1980)	84	16
5	Parasnis (1992)	96	73.95	26.05	Sheth (1990)	82	18
6	Neumann (1994)	85	55.2	44.8	Parasnis (1992)	92	8
7	Panda (1999)	66	46.6	53.4	Panda (1999)	92.69	7.31
8	Trotsenburg (2000)	819	66	34	C Sunitha (2013)	96.5	3.5
9	Garuti (2001)	1500	61.8	38.2	Valson et al (2016)	94	6
10	Gianninoto (2003)	512	25	75	Present Series	94	6
11	de Wit AC (2003)	1045	54.2	45.8			
12	T Allameh et al (2007)	105	39	61			
13	Sonja P (2011)	234	41.02	58.91			
14	C Sunitha (2013)	50	54	46			
15	Valson et al (2016)	50	58	42			
16	Present Study	50	54	46			

Of the 23 cases with abnormal findings on hysteroscopy, commonest seen was Endometrial hyperplasia (10 cases, 20%), followed by

Endometrial polyps (7 cases, 14%) and Submucous Myoma (2 cases, 4%). Panda⁶ found endometrial hyperplasia in 28.3%, Wamsteker¹¹ found endometrial polyp in 19%, endometrial hyperplasia in 12.2% and submucous myoma in 7.8%, Trotsenburg⁸ observed myomas and polyps in 14% and deLewit¹² reported myomas in 21% and polyps in 14.4%. Valson et al⁹ reported endometrial polyp (16%), followed hyperplasia (12%), and submucous myoma (4%).

Hysteroscopy diagnosed all cases of endometrial hyperplasia, polyps and myomas with a specificity of 100%. Sheth¹³ reported 81.8 % accuracy in diagnosis of polyps and myomas, while Garuti¹⁴ reported 95.4% specificity in diagnosis of polyps.

In the present study, hysteroscopy made a false positive diagnosis of endometritis in 1 case and missed the diagnosis of 1 case each of endometrial atrophy and endometritis.

The accuracy of hysteroscopy in this study was 94 % and that of endometrial histopathology was 88 %.

A statistical analysis of the accuracy obtained by various authors and of the present study shows that there is no significant difference between the values.

Table No 7: Comparison of Validity factors: Hysteroscopy

Author	Sensitivity	Specificity
Loverro (1996)	98	95
Garuti(2001)	94.2	88.8
Loffer(1989)	98	100
Parasnis (1992)	92	100
Panda (1999)	92.5	78.78
C Sunitha (2013)	92	95
Valson et al (2016)	90.9	96.4
Present Series	91.66	96.15

Test Used: F Test $p = 0.3562 > 0.05$ NS

Statistical analysis of sensitivity and specificity of hysteroscopy; There is no significant difference between sensitivity and specificity obtained in this study and that obtained by various other authors. This confirms the validity of hysteroscopy done in the present study.

Table No 8: Comparison of Validity factors: Dilatation and Curettage

Author	Sensitivity	Specificity
Loverro (1996)	79.2	95
Garuti (2001)	78	94
Loffer (1989)	65	100
Parasnis (1992)	76	100
C Sunitha (2013)	92	96
Valson et al (2016)	77.3	96.4
Present Series	79.16	96.15

Test Used: F Test $p = 0.9921 > 0.05$ NS

A comparison of sensitivity and specificity of D&C obtained in the present study with those obtained by other authors shows no significant difference between the obtained values.

Table No 9: Panoramic Hysteroscopy V/S Curettage

Results	Gimpelson & Rappold	Gimpelson	Present Series
Panoramic Hysteroscopy equal to Curettage	79	73	82
Hysteroscopy greater than Curettage	18	24	12
Hysteroscopy less than Curettage	3	3	6

Test Used: F Test $p = 1 > 0.05$ NS

In the present study, the results of hysteroscopy and dilatation and curettage were in agreement in 82 % patients, hysteroscopy revealed more information than curettage in 12 % patients and curettage revealed more information than hysteroscopy in 6% patients.

This is comparable to other similar studies which shows that Panoramic Hysteroscopy is better than Curettage in the evaluation of abnormal uterine bleeding.

CONCLUSION

- This study confirms that hysteroscopy is superior to curettage in evaluating patients with abnormal uterine bleeding.
- Hysteroscopy is a safe, reliable and quick procedure in the diagnosis of cases with abnormal uterine bleeding with high sensitivity, specificity and negative predictive value.
- The concern of today's Gynecologist while evaluating abnormal uterine bleeding is not to miss a significant cancerous lesion. The chances that such a lesion would be missed are rare, if we stick to the criteria for negative hysteroscopic view and usually no further investigation may be necessary.
- It would be prudent to obtain endometrial tissue for histopathological examination, especially in peri or postmenopausal patients in spite of negative hysteroscopic view.

BIBLIOGRAPHY

1. Baggish MS. Operative Hysteroscopy. In: Rock JA, Jones HW III, editors. *TeLinde's Operative Gynecology* 9th edition. Philadelphia: Lippincott Williams & Wilkins; 2003. p. 379-411.
2. VMO'Connor Heavy menstrual loss. Part1: is it really heavy loss? *Med Today*. 2003; 4:51-9.
3. Smith JJ, Schulman H. Current dilatation and curettage practice. A need for revision. *Obstet Gynecol* 1985; 65: 516-18.
4. Grimes DA. Diagnostic dilatation and curettage: a re- appraisal. *Am J Obstet Gynecol*. 1982;142:1-6.
5. Clark TJ, Mann CH, Shah N, Song F, Khan KS, Gupta JK. Accuracy of outpatient endometrial biopsy in the diagnosis of endometrial cancer: a systematic quantitative review. *Br J Obstet Gynecol*. 2002; 109:313-21
6. Panda A, Parulekar SV, Gupta A. diagnostic hysteroscopy in abnormal uterine bleeding and its histopathological correlation. *J Obst Gyn India* 1999; 175: 74-76
7. Giannino A, Morana C, Campione C. Diagnostic hysteroscopy in abnormal uterine bleeding. Five year's experience. *Minerva Ginecol* 2003; 55: 57-61
8. Van Trotsenburg M, Wieser F, Naegle F. Diagnostic hysteroscopy for the investigation of abnormal uterine bleeding in premenopausal patients. *Contrib Gynecol Obstet* 2000; 20: 21-26
9. Valson H et al. The role of diagnostic hysteroscopy in abnormal uterine bleeding and its histopathological correlation following blind dilatation and curettage *Int J Reprod Contracept Obstet Gynecol*. 2016 Mar; 5(3): 609-614.
10. S Singh, BK Taneja, R Ahlawat. Role of diagnostic hysteroscopy in abnormal uterine bleeding. *Int J Reprod Contracept Obstet Gynecol*. 2014 Sep;3(3):544-551.
11. Wamsteker K. Hysteroscopy in the management of abnormal uterine bleeding in 199 patients. In: Siegler AM, Lindemann HJ, editors. *Hysteroscopy: Principles and Practice*. Philadelphia: JB Lippincott; 1984. p. 128-131
12. de Wit AC, Vleugels MP, de Kruif JH. Diagnostic hysteroscopy: A valuable diagnostic tool in the diagnosis of structural intra-cavitary pathology and endometrial hyperplasia or carcinoma? Six year's of experience with non clinical diagnostic hysteroscopy. *Eur J Obstet Gynecol Reprod Biol* 2003; 110: 79-82
13. Sheth SS, Nerurkar NM, Mangeshkar PS. Hysteroscopy in abnormal uterine bleeding. *J Obstet Gyn India* 1990; 40: 451
14. Garuti G, Sambruni I, Colonnelli M, Luerti M. Accuracy of hysteroscopy in predicting histopathology of endometrium in 1500 women. *J Am Assoc Gynecol Laparosc* 2001; 8: 207-13