

**UTILITY OF HYSTEROSCOPIC EVALUATION IN TREATMENT OF PATIENTS WITH ABNORMAL UTERINE BLEEDING****Dr. Preeti F. Lewis** Associate Professor, GGMC & Sir J.J. Group of Hospitals**Dr. Roopali Sehgal** Resident, GGMC & Sir J.J. Group of Hospitals**Dr. Ashok R. Anand** Professor & Head, GGMC & Sir J.J. Group of Hospitals**ABSTRACT**

Background & Objectives: Abnormal uterine bleeding is the most common complaint in gynaecology and an important source of morbidity. This study evaluates the role of diagnostic hysteroscopy in the evaluation of Abnormal Uterine Bleeding in women and its histopathological correlation along with its therapeutic benefits of hysteroscopy in patients with AUB. **Methods:** 50 patients with AUB who got admitted at Grant Government Medical College Hospital in the Department of Obstetrics and Gynaecology were subjected to hysteroscopy with appropriate intervention such as Endometrial sampling, LNG IUD insertion and Polypectomy. Histopathological analysis of the endometrial sample obtained. The hysteroscopic findings were correlated with the histopathology report. **Results:** AUB was more common in 40-49 yrs. The most common presenting complaint was Menorrhagia. Hysteroscopy was done successfully in all the patients. Abnormalities seen were endometrial hyperplasia (simple and complex), submucous myoma, and atrophic endometrium, proliferative phase and secretory phase. Hysteroscopy was found to be 100% sensitive and specific in diagnosis of endometrial lesions. **Conclusion:** This study confirms the conclusion of many others that hysteroscopy is an accurate and a feasible investigation in evaluating patients with Abnormal Uterine Bleeding.

KEYWORDS :**INTRODUCTION**

Abnormal uterine bleeding is defined as any type of bleeding in which the duration, frequency or amount is excessive for an individual patient. One third of gynaecological consultation is due to AUB. It is responsible for almost two-thirds of hysterectomies.¹⁻⁸

AUB affects 10-30% of reproductive age group women and upto 50% of women in perimenopausal age group.³ Incidence varies with age and reproductive status of the women. Incidence increases with age, reaching 24% in those aged 36-40 years. Endometrial sampling is considered essential in AUB to confirm the benign nature of the disease and excluding malignancy by histopathological examination. This is important to decide the treatment modality.

Goals of clinical management are primarily dependent upon attaining a correct etiological diagnosis. The history, physical examination and pelvic examination attempt to determine the site of the bleeding and its source.^{6,7,9} Information gathered from this will suggest what direction the investigation would take and the treatment modality.^{7,8,12-14} Conventionally, Ultrasonography and Dilatation and Curettage were the most common investigations employed in the evaluation of the causes of AUB.

Hysteroscopy has ushered a new era in the evaluation of AUB.^{1-8,10-11} By direct visualization of the uterine cavity it is able to pin point the aetiology in majority of the cases. It can accurately detect endometrial hyperplasia and aids in the early diagnosis of endometrial carcinoma and uterine polyps. This study has been taken up to analyze the role of hysteroscopy in the evaluation of AUB in terms of accuracy of hysteroscopic findings and contribution of the procedure to clinical diagnosis and treatment. It also aims to correlate hysteroscopic findings with histopathological results.

AIMS & OBJECTIVES :

1. To study the accuracy of hysteroscopy in evaluation of abnormal uterine bleeding (AUB) and to correlate hysteroscopic findings with histopathological findings.
2. To study the therapeutic benefits of hysteroscopy with appropriate intervention in patients with AUB.

MATERIALS AND METHODS

This is a prospective study in the role of diagnostic hysteroscopy in evaluation and treatment of AUB in women and its histopathological correlation. This study has been conducted in the Department of Obstetrics and Gynaecology, Grant Government Medical College Hospital and Sir J.J. Group of Hospitals from July 2022 to December 2022.

Clinical assessment and thorough local and systemic examination of 50 patients was done and relevant findings were recorded with informed consent. Pre operative investigations: Complete blood count, Renal function tests, Liver function tests, Blood grouping and Rh typing, Serological Tests, ECG, Chest X-ray and Ultrasound Abdomen and Pelvis. Anaesthetic fitness was obtained. Injection TT ½ cc given intramuscularly. Prophylactic antibiotics with second generation cephalosporins was given in pre operative and post operative period.

LNG-IUD was inserted in patients with normal uterine cavity and UCL \leq 3.5 inches.

Common Indications for Hysteroscopy :

- 1) Menorrhagia (> 80 ml bleeding)
- 2) Intermenstrual Bleeding
- 3) Frequent cycles (Cycle length <24 days).
- 4) Scanty Menses (<5 ml)
- 5) Prolonged Menses (> 8 days)

Exclusion Criteria:

1. Puberty menorrhagia
2. Pelvic infection
3. Surgical and medical complications like uncontrolled diabetes, severe hypertension and bronchial asthma.
4. Cervical carcinoma

RESULTS AND OBSERVATIONS

50 patients with AUB were selected for the study. The duration of prospective study was between July 2022 to December 2022. All the patients with AUB were subjected to hysteroscopy, biopsy and histopathological with or without LNG IUD insertion. Hysteroscopy was done under intravenous sedation. It was successful in 100% of cases and concluded satisfactory in almost all cases. There was no failure in any of the patients taken for study. During and after the procedure there was no complication.

Table 3: Showing complaints of patients in our study

Symptoms	No. of patients
Heavy menstrual bleeding	37
Frequent Cycles	5
Oligomenorrhoea	1
Intermenstrual Bleeding	7

Table 4 : Age distribution of patients with abnormal uterine bleeding :

Category	20-29	30-39	40-49	>50	Total
Heavy menstrual bleeding	5	16	13	3	37
Frequent Cycles	0	0	5	0	5
Oligomenorrhoea	1	0	0	0	1
Intermenstrual Bleeding	0	2	3	2	7

40-49 age group has the maximum number of patients in our study.

Table 5 : Showing duration of symptoms

Duration	No. of Patients
< 6 months	16
6-12 months	15
> 12 months	19

Table 6 : Showing Hysteroscopic Findings

Findings	Features	No.	Percentage
Proliferative Endometrium	Pale Pink	17	34%
Secretory Endometrium	Strawberry Appearance	10	20%
Atrophic Endometrium	Starry Sky Appearance	2	4%
Myoma	Pebble Appearance	6	12%
Polyp	Tongue Shaped	5	10%
Hyperplastic Endometrium	Polypoidal Appearance	9	18%
Carcinoma Endometrium	Cerebroid Appearance	1	2%

Table 7 : Histopathological Findings

HISTOPATHOLOGICAL FINDINGS	No. of Pts	Percentage
Proliferative Endometrium	20	40%
Secretory Endometrium	9	18%
Atrophic Endometrium	2	4%
Endometrial Hyperplasia	7	14%
Endometroid Carcinoma	1	2%
Submucous Myoma	6	12%
Benign Endometrial Polyp	5	10%

The sensitivity of hysteroscopy was assessed by correlating the findings of hysteroscopy with the histopathological examination of the tissues obtained. The hysteroscopic findings in the study are:

Table 8 : Correlation between Hysteroscopy and Histopathological Findings

Hysteroscopy	Histopathological Findings								
	Findings	No. of Patients	Proliferative	Secretory	Atrophic	Hyperplasia	Benign Endometrial Polyp	Endometrial Adenocarcinoma	Submucous Myoma
Proliferative	17	17							
Secretory	10		12						
Atrophic	2			2					
Hyperplasia	09				7				

Submucous Myoma	6						6
Polyp	5					5	
Endometrial Cancer	1						1

Patients who underwent therapeutic intervention were followed up for a period of 3 months. 74% patients were relieved of symptoms and 26% patients continued having similar complaints.

LNG IUD as a treatment modality post hysteroscopy was tolerated well in 90% of the patients.

DISCUSSION:

Abnormal uterine bleeding (AUB) represents a notable sign for benign and malignant uterine pathology. AUB during any age group is of concern and has to be evaluated.

The incidence of endometrial malignancy was 1% in Nagele's study and 0.6% by Sciarra and Valle. In our study 2% patients had endometrial carcinoma. 5 patients (10%) of them were above 50 years and out of which 1 patient in the study was shown to have endometrial carcinoma, although peak incidence of endometrial cancer was found in women in their 70s.

6 patients in our study had myoma which has been diagnosed by hysteroscopy. In histopathology 6 patients had leiomyoma. The positive predictive value was 100% in diagnosing the myomas. This is in accordance with the review.

Loeffler¹⁵ in his study showed the diagnostic specificity and sensitivity of dilatation and curettage against the hysteroscopic assessment and biopsy and showed 65% sensitivity for dilatation and curettage and 98% sensitivity for hysteroscopy and biopsy. The sensitivity for submucous myoma was 100% in our study when correlated with histopathological analysis. The finding of hyperplasia was in 9 (20%) patients through hysteroscope and in histopathological analysis it was in 7 patients (16%). The positive predictive value was 80%.

In our study the positive predictive value of hysteroscopy in detecting the intrauterine pathology was 100% The secretory endometrium was seen in 10 patients (20%) through the hysteroscope. In histopathology it was seen in 9(18%) of our patients. The positive predictive value was 100% when compared with the studies is low.

CONCLUSION

50 patients with AUB were included in the study. The most common pattern of bleeding in these patients was heavy menstrual bleeding. Hysteroscopy was done in all patients with informed consent under intravenous anaesthesia. There was no major complications. It proved to be a safe and simple procedure in diagnosing and when required appropriately treating intrauterine pathologies. Even small areas of endometrial thickening, alterations in vasculature, consistency of endometrium are clearly made out with hysteroscopy. This facilitated easy biopsy at that site. The pathological correlation was also good when the biopsy was taken from the suspicious sites. The most common hysteroscopic finding was proliferative endometrium Those patients suspected to have hyperplasia through hysteroscope was confirmed by HPR. 9 patients had submucous polyp on hysteroscopy and were treated with polypectomy which resolved their symptoms. LNG IUD insertion was also used as a treatment modality along with hysteroscopy for women with normal uterine cavity and UCL <= 3.5 inches with AUB. Considering all the factors together diagnostic hysteroscopy along with appropriate intervention such as polypectomy, endometrial curettage and sampling or LNG IUD insertion is both accurate and a feasible investigation in evaluating and treating various causes of AUB.

REFERENCES:

1. Emanuel MH, Verdel MJC, Stas H, Wamsteker K, Lammes FB. An audit of true prevalence of intra uterine pathology: the hysteroscopic findings controlled for patient selection in 1202 patients with abnormal uterine bleeding. *Gynecol Endosc* 1995; 4:237-41.
2. Gimpleson RJ, Rappold HO. A comprehensive study between panoramic hysteroscopy with directed biopsies and dilatation and curettage. A review of 276 cases. *Am J Obstet Gynecol* 1988; 158:489-92
3. Stamatellos P, stamatopoulos D, Rouso E, Asimakopoulos C, Stamatopoulos I, Bontis Investigation of abnormal uterine bleeding in perimenopausal women by hysteroscopy and endometrial biopsy *Gynecol Surgery* (2005) 2: 51-55.
4. Elisabeth Krampfl, Tom Bourne < Heidi Hurlen-Solbakken, OlAnteverted Istre. Transvaginal ultrasonography sonohysterography and operative hysteroscopy for the evaluation of abnormal uterine bleeding. *Acta Obstet Gynecol Scand* 2001; 80: 616-622.
5. Serden S. Dignostic hysteroscopy to evaluate the cause of abnormal uterine bleeding. *Obstet Gynecol Clin North Am* 2000; 27:277-86.
6. Faraquhar C, Ekeroma A, Furness S, Arroll B. A systematic review of transvaginal ultrasonography, sonohysterography and hysteroscopy for the investigation of abnormal uterine bleeding in perimenopausal women. *Acta Obstet Gynecol Scand* 2003; 82: 493-503.
7. Van Dongen H, de Kroon C, Jacobi C, TRimboos B, Jansen F. Diagnostic hysteroscopy in abnormal uterine bleeding: a systematic review and meta-analysis. *BJOG* 2007; 114:664-675.
8. OlAnteverted Istre Erik Qvigstad. Current treatment options for abnormal uterine bleeding: an evidence – based approach. *Best Practice & Research Clinical Obstetrics and Gynecology* Vol. 21, No. 6, pp. 905-913, 2007.
9. Hatasaka H: The evaluation of Abnormal Uterine Bleeding clinical *Obstet Gynaecol*. 2005;48(2):258-73.
10. Goldstein RB , Bree RL, Benson CB, Benacerraf BR, Bloss JD, Carlos R, et al. Evaluation of the woman with postmenopausal bleeding : Society of Radiologists in Ultrasound – Sponsored Consensus Conference statement. *J Ultrasound Med* 2001; 20: 1025-36.
11. Clark TJ, Voit D, Gupta JK, Hyde C, Song F, Khan KS. Accuracy of hysteroscopy in the diagnosis of endometrial cancer and hyperplasia: systematic quantitative review. *JAMA* 2002; 288: 1610-21.
12. Ricardo Bssil Lasmar, Rog erio Dias, Paulo Roberto Mussel Barrozo, Marco Aur elio Pinho Oliveria, Evandro da Silva Freire Countinho , and Daniela Baltar da Rosa. Prevalence of hysteroscopic findings and histologic diagnosis inpatients with abnormal uterine bleeding. *Fertility and Sterility* _ Vol. 89, No.6, June 2008
13. Selvaggi L, Cormio G, Ceci O, Loverro G, Cazzolla A, Bettocchi S. Hysteroscopy does not increase the risk of microscopic extrauterine spread in endometrial carcinoma. *Int J Gynecol Cancer* 2003; 13:223-7.
14. Schawarzler p, Concin H, Bosch H, Berluger A, Wohlgannt K, Collins WP, Bourne TH. An evaluation of sonography and diagnostic hysteroscopy for the assessment of intrauterine pathology. *Ultrasound Obstet and Gynecol* 1998; 11:337-42.
15. Loffer FD. Hysteroscopy with selective endometrial sampling compared with D&C for abnormal uterine bleeding: the value of a negative hysteroscopic vie. *Obstetrics and gynecology* 1989; 73: 16-20.