

## **Role of Hysteroscopy in Evaluation of Abnormal Uterine Bleeding –Time to Revolutionize**

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### **Introduction**

Abnormal Uterine Bleeding is one of the most common gynaecological complains for which patient visit to gynaecologist. Some time it become difficult for a clinician to come to a exact diagnosis of the condition. 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. This study was done with the aim of evaluating the accuracy of hysteroscopy in abnormal uterine bleeding cases and to correlate hysteroscopic findings with histopathological findings. A total of 100 patients were included in the study. Women with pregnancy/Abortions/Ectopic pregnancy, Uterine and cervical infections and pelvic inflammatory diseases (PID), STD's and vaginitis, Diagnosed cases of Lower genital tract malignancies were excluded from the study. A total of 50 patients were included in the study. Age group of the patients ranged from 20-55 years and the higher prevalence of AUB was seen in the age group 41 to 50years. Menorrhagia 44% (22) was the most typical presentation. Hyperplastic endometrium present in 30% ,

followed by Polyp in 28% cases. Accuracy of hysteroscopy in diagnosing intrauterine pathology is 96%.

### **Conclusion**

Hysteroscopy is a safe, simple, quick and economic technique, well-accepted by the patient, with great potential in gynecology. Hysteroscopic-guided biopsy and histopathology are considered as the “new gold standard” in evaluating a case of abnormal uterine bleeding.

### **Introduction**

“A vigilant eye in the uterine cavity is better than numerous blind curettages” - Lindmann.

Abnormal Uterine Bleeding is one of the most common gynaecological complain of reproductive age group for which patient visit to gynaecologist, almost 1/3 rd of gynaecological outdoor patients are due to abnormal menstrual bleeding<sup>1</sup>. The proportion of this complain is higher in peri-menopausal and post menopausal age group females. Some time it may become difficult for a clinician to come to a exact diagnosis of the condition. Hysteroscopy provides a simple & easy method for direct visualization of the cervical canal & uterine cavity.

It does not substitute other diagnostic procedures<sup>2</sup>; rather, it complements them. Hysteroscopy is a safe, simple, quick and economic technique, well-accepted by the patient, with great potential in gynecology.

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<sup>3</sup>.

**Aims and Objectives**

1. To study the accuracy of hysteroscopy in evaluation of abnormal uterine bleeding.
2. To correlate hysteroscopic findings with histopathological reports.

**Material and Methods**

The present study was done in Department of Obstetrics & Gynaecology, Mahatma Gandhi Medical College, Jaipur from October 2017- March 2018. It was a Prospective observational study

These patients were seen in the outpatient department, a detailed menstrual history, both systemic and gynecological examination was done. USG pelvis was done to detect any structural abnormality and to see the endometrial thickness. Patients were admitted on D7-D10 of their menstrual cycle. In case of post-menopausal woman, they were prepared and admitted when the bleeding decreased or stopped. Hysteroscopy was performed with 2.9 mm hysteroscope with operating sheath & normal saline as distension medium under general anesthesia. Endometrial Biopsy was taken in the same sitting.

Table 1: Distribution of patients according to age

Age Distribution	No. of patients( n=50)
20 to 30 yrs	02

31 to 40 yrs	05
41 to 50 yrs	28
>51 yrs	15

Age group of the patients ranged from 20-55 years and the higher prevalence of AUB was seen in the age group 41 to 50years (Table 1). Mean age was 45 years

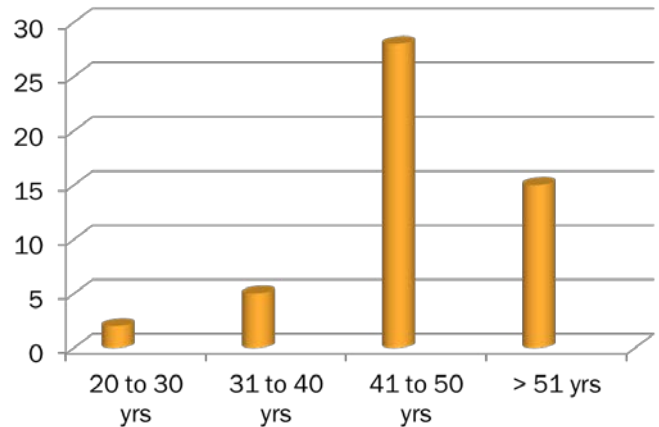


Table 2: Distribution of patients according to menstrual abnormality in AUB

Menstrual Abnormality	No. of Patients (n= 50)	Percentage
Menorrhagia	22	44
Polymenorrhoea	13	26
Post Menopausal Bleeding	07	14
Metrorrhagia	05	10
Oligomenorrhoea	03	06

Menorrhagia 44% (22) was the most typical presentation

Figure 1: Pie chart showing distribution of patients according to menstrual abnormality in AUB

### Menstrual abnormality

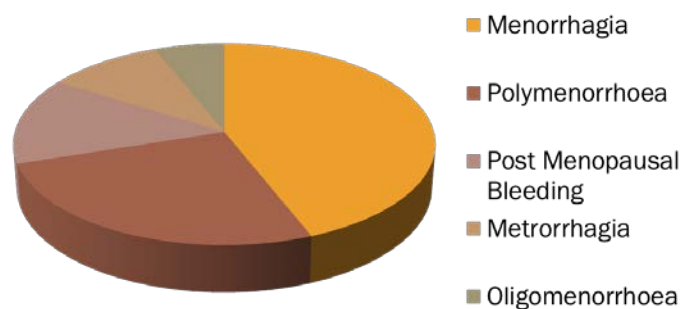


Figure 2 : Endometrial polyp

Table 3: Distribution of patients according to hysteroscopic findings

Hysteroscopy findings	No. of Patients (n= 50)	Percentage (%)
Normal	29	58
Hyperplastic	06	12
Atrophic	04	08
Polyp	08	16
Submucousmyoma	02	04
Endometrial Carcinoma	01	02

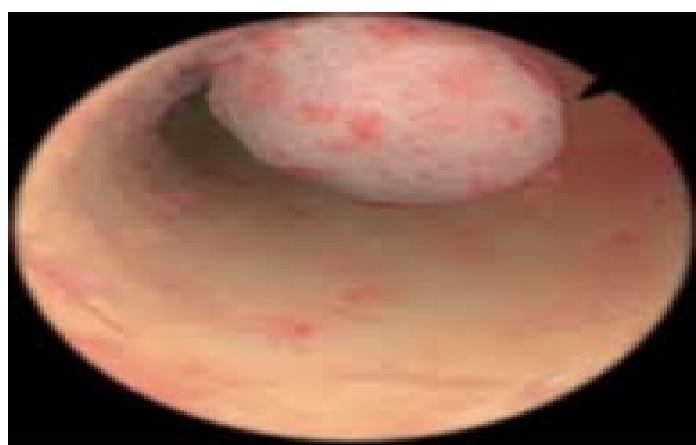


Figure 3 : Submucous fibroid on Hysteroscopy



Figure 1 : Endometrial polyp on Hysteroscopy

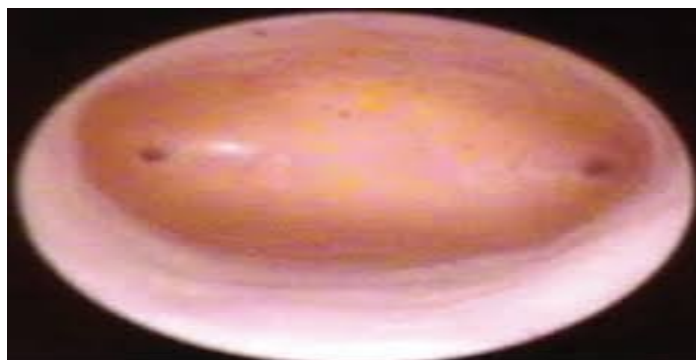


Figure 3 : Atrophic endometrium on Hysteroscopy

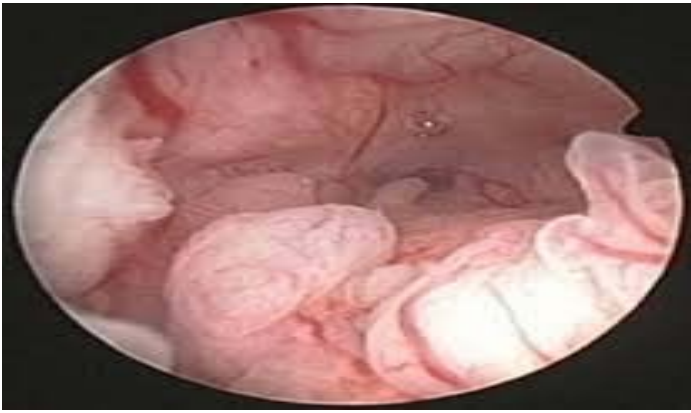


Figure 4: Hyperplastic Endometrium on Hysteroscopy  
Increased gland to stroma ratio.



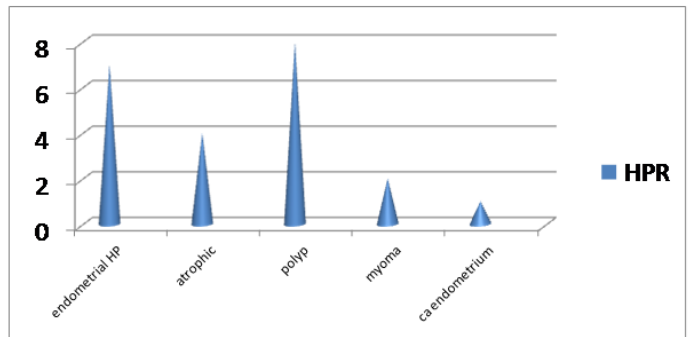
Figure 4 : Ca endometrium on hysteroscopic view.  
Cerebroid appearance

Of the 21 cases with abnormal findings on hysteroscopy commonest was endometrial polyp (16%), followed hyperplasia (12%), and submucousmyoma (4%).

Table 4: Distribution according to histo-pathological report findings

HPR findings	No. of patients	Percentage
Normal	26	52
Simple HP without atypia	04	08
Simple HP with atypia	02	04

	Cystic Glandular	01	02
Hyperplasia			
Atrophic endometrium		04	08
Myoma (submucous)		02	04
Polyp		08	16
Endometritis		02	04
Endometrial carcinoma		01	02



Of the 50 patients who underwent hysteroscopy and curettage, 47 patients (94%) had the same tissue diagnosis in both hysteroscopy and curettage.

Two cases which were diagnosed as normal by hysteroscopy, turned out to be endometritis by histopathology and one case diagnosed as normal on hysteroscopy was reported as cystic glandular hyperplasia on histopathology.

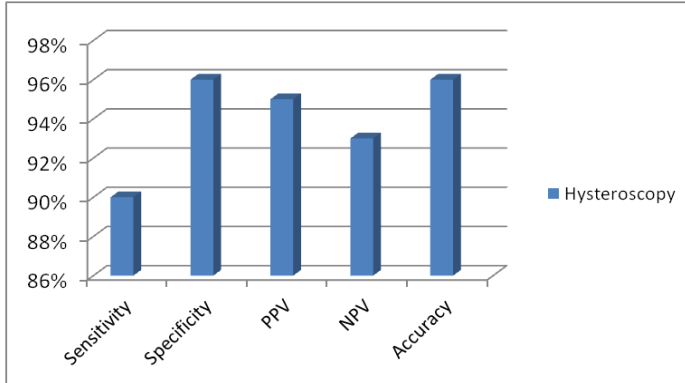
Table 5: Distribution according to symptoms

Type of AUB	Nor mal	Hyperp lasia	Pol yp	Myo ma	Atro phic	Malign ancy
Menorrhagia	11	05	03	02	-	-
Polymenorrhea	09	-	04	-	-	-
PMBL	03	01	-	-	02	01
Metrorrhagia	04	-	01	-	-	-

Oligo- menorr hea	01	-	-	-	02	-
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Table 6: Sensitivity, specificity, positive predictive value, negative predictive value and accuracy of hysteroscopy to detect type of AUB

	Hysteroscopy
Sensitivity	90%
Specificity	96%
PPV	95%
NPV	93%
<b>Accuracy</b>	<b>96%</b>



The results of our study indicate a high sensitivity and specificity of hysteroscopy in detection of intrauterine pathology (90%, 96%).

**Discussion**

Abnormal uterine bleeding is one the most frequently encountered conditions in gynecology. As quoted by Devi and Menon, the incidence is 30–40% of all gynecological cases. 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<sup>4,5</sup>. Diagnostic curettage has been the method of choice to diagnose endometrial abnormalities for many years but hysteroscopy combined with histologic examination subsequently became the “gold standard” for such evaluation<sup>9</sup>. Hysteroscopy is a superior method that has high sensitivity and specificity in diagnosing the cause of AUB due to the fact that the uterine cavity and intrauterine pathology are directly visualized. AUB was seen in the age group 41 to 50years (Table 1). Mean age was 45 years. This is consistent with findings in Trajkovic’s study<sup>8</sup> and Paulo Vercillini et al., Luigi Mangiuzulli University, Italy.

Menorrhagia 44% (22) was the most typical presentation in our study. These results were similar in the study conducted by Aisha Razzaq et al<sup>6</sup>.

Comparison of various parameters with different studies-

Parameter	Allama h etal <sup>7</sup>	Barat i etal <sup>10</sup>	A. Razzaq etal <sup>6</sup>	Our stud y
Sensitivity	100%	97%	97%	90%
Specificity	80%	99%	90%	96%
PPV	88%	94%	94%	95%
NPV	100%	99%	96%	93%
Accuracy	-	-	-	96%

**Conclusion**

In the present study, the results of hysteroscopy and diagnostic curettage were in agreement in 94% of patients while in 4% of the cases diagnostic curettage gave a diagnosis of endometritis which were seen as normal in hysteroscopy. Hysteroscopic-guided biopsy and

histopathology are considered as the “new gold standard” in evaluating a case of abnormal uterine bleeding.

Endometrial biopsy under hysteroscopic guidance can play a supporting role in supplementing the diagnostic accuracy of hysteroscopy. Proper diagnosis is very important for the selection of correct line of management of Abnormal Uterine Bleeding in patients and some time major surgical procedure can be avoided. Hysteroscopy is a valuable, simple, low-risk technique which allows an adequate exploration of the uterine cavity under visual control.

It ensures speed and safety with the diagnosis and treatment. The results are immediately available.

In patients with abnormal uterine bleeding, hysteroscopy provides the possibility of immediate diagnosis and prompt and effective treatment. It allows finding out the source of bleeding and perform a directed biopsy of the suspected area. It affords a more accurate diagnosis than dilatation and curettage for intrauterine pedunculated pathologies, but for carcinoma of endometrium and for endometrial hyperplasia, histopathology is almost 100% diagnostic.

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