

# Diagnostic hysteroscopy in abnormal uterine bleeding and its histopathological correlation

Anuradha Panda • Shasank V. Parulekar • Alka Gupta

K.E.M. Hospital, Seth G.S. Medical College, Parel, Mumbai

**Summary :** This study was undertaken to find the accuracy of hysteroscopy in the evaluation of abnormal uterine bleeding (AUB) and to correlate the hysteroscopic findings with histopathologic findings.

Sixty patients of AUB underwent hysteroscopic evaluation followed by D & C. They were in the age groups of 25-70 years. Abnormal findings were detected in 53.4% of cases. Hyperplasia was the commonest finding. The sensitivity of hysteroscopy in the present series was 92.5% and that of blind curettage 83.3%. False negative value of hysteroscopy was very low. The negative predictive value was 93%.

So hysteroscopy is a safe, reliable and quick procedure in the diagnosis of AUB. It has a high sensitivity and negative predictive value. It can supplement and enhance the accuracy of tissue diagnosis. So hysteroscopy should be done in all cases of AUB whenever facility is available.

## Introduction

Abnormal uterine bleeding (AUB) is one of the most common complaints with which a patient presents to a gynaecologist. D & C has long been the diagnostic gold standard for AUB. However only 70-80% of the endometrium can be curetted. Polyps and submucous fibroids are frequently undetected by curettage alone.

With the advent of hysteroscopy direct visualisation is possible. Also the procedure is less traumatic and less time consuming.

This study attempts to analyse the place of hysteroscopy in the evaluation of AUB in terms of accuracy of hysteroscopic findings and the contribution of the procedure to clinical diagnosis. It also aims to correlate the hysteroscopic findings with histopathological results.

## Material and Methods:

Sixty patients of AUB who attended our Hospital from January 1994 to Dec. 1995 were included in the study. They were between 25-70 years of age. All patients in the study underwent a diagnostic hysteroscopy followed by D & C. All patients had a haemogram, coagulation studies, urine analysis and blood sugar & urea levels and

pap smear. Besides these ECG & X-ray chest were done for anaesthesia fitness.

The procedure was done under IV pentazocine (0.3-0.6/kg) and diazepam (0.1mg/kg) supplemented with paracervical block with 1% lignocaine. Panoramic hysteroscopy was performed with a panoramic hysteroscope with 30 degrees fore oblique lens (Storz, Germany). Ringer lactate was used as irrigation medium. No complication was encountered in any of the cases. Prophylactic antibiotic was used to cover the procedure.

## Results & Discussion:

Panoramic hysteroscopy was performed in 60 patients. Majority of the patients were in the age group of 35-45 years.

The most common complaint was menorrhagia (60%) followed by polymenorrhagia & metrorrhagia.

The hysteroscopic findings are shown in Table I. 53.4% of the cases showed abnormal findings. Endometrial hyperplasia (28.3%) was the commonest finding. The rate at which intrauterine pathology is detected at hysteroscopy varies. Table II compares the various series reported in the literature.

**Table I**  
**Findings at Hysteroscopy**

Hysteroscopy findings	No.of cases	Percentage
Normal	28	46.6
Abnormal	32	53.4
- Hyperplasia	17	28.3
- Submucous myoma	4	6.7
- Endometrial Polyp	6	10.0
- Carcinoma endometrium	0	0
- Atrophic	2	3.3
- Asherman's	1	1.66
- Lost IUCD	1	1.66
- Hyperplasia with submucous myoma	1	1.66

Endometrial histology was as shown in Table-III. Majority had normal histology (55%). Endometrial hyperplasia was found in 26.6% of cases.

The comparison between hysteroscopic findings and endometrial histology is shown in Table-V. Out of the 60 cases, 28 had normal hysteroscopic view of which 26 were

**Table II**  
**Normal and Abnormal Findings at Hysteroscopy in various series**

Author	Year	Cases	Normal%	Abnormal %
Siegler et al	1976	257	41.7	58.3
Sciarra & Valle	1977	104	28.8	71.2
Valle	1981	553	36.3	63.6
Baggish	1979	34	47.1	52.9
Loffer	1986	187	40.6	59.4
Parulekar & Parasnis	1992	96	76.0	24.0
Present series		60	46.6	53.4

**Table III**  
**Endometrial Histology**

Endometrial histology	No.of cases	Percentage
Normal	33	55
Abnormal	27	45
- Fibroid	4	6.6
- Polyp	4	6.6
- Atrophic	3	5.0
- Endometrial hyperplasia	16	26.7
- Carcinoma	0	0

**Table IV**

Clinical Diagnosis	No.of cases	N	Hyper-Plasia	HYSTEROSCOPY			
				Myoma	Polyp	Hyp.with Polyp	Atrophic
DUB	39	27	10	-	1	1	-
Adenomyosis	3	3	-	-	-	-	-
Myoma	6	2	1	3	-	-	-
CA	2	2	-	-	-	-	-
Polyp	2	2	-	-	-	-	-
Asherman's	2	1	-	-	-	-	1

confirmed to be normal on tissue diagnosis giving a diagnostic accuracy of 92.69% for normal uterine cavity.

Of the 17 cases of endometrial hyperplasia 13 were proved to be so on H.P, accuracy being 76.4%. The accuracies in diagnosing polyps & myoma were higher. Asherman's syndrome was correctly diagnosed in all the

cases.

The accuracy of hysteroscopic findings were tested by subjecting the endometrium to HP examination. Many studies done in the past have supplemented the general consensus of hysteroscopic accuracy as shown in Table-VI.

**Table V**  
**Comparison between hysteroscopic findings & endometrial histology**

Hysteroscopic findings	No. of cases	ENDOMETRIAL HISTORY					Accuracy
		N	Hyper-	Myoma	Polyp	Atrophic	
Normal	28	26	2	-	-	-	92.69%
Hyperplasia	17	4	13	-	-	-	76.4%
Myoma	4	-	1	3	-	-	75%
EN. Polyp	6	1	0	-	5	-	83.5%
UCD	1	1	-	-	-	-	100%
Atrophic	2	1	-	-	-	1	50%
Asherman's	1	-	-	-	-	1	100%
Carcinoma	0	-	0	-	-	-	100%
Hyperplasia With submucous Myoma	1	-	1	-	-	-	100%
<b>Total :</b>	<b>60</b>	<b>33</b>	<b>17</b>	<b>3</b>	<b>5</b>	<b>2</b>	

**Table VI**  
**Accuracy of hysteroscopic findings**

Author	Year	Accuracy	Misinterpretation
Baggish	1979	87.5%	12.5%
Barbot et al	1980	84.0%	16.0%
Sheth et al	1990	82.0%	18.0%
Parulekar & Parasnis	1992	92.0%	8.0%
Present series		92.5%	7.5%

In the present series, the sensitivity of hysteroscopy (92.5%) was greater than that of curettage (83.3%). The specificity of hysteroscopy was 78.78% and that of D & C 93.3%. The positive predictive value (i.e. the proportion of cases with an abnormal test result which have a clinical abnormality, is 78.1%, but the negative predictive value (i.e. the proportion of cases with a normal test result which do not have a clinical abnormality) was 93.3%.

### Conclusion:

Hysteroscopy is a safe, reliable and quick procedure in the diagnosis of cases with abnormal uterine bleeding. It has a high sensitivity and negative predictive value. It can supplement and enhance the accuracy of tissue diagnosis. So hysteroscopically directed biopsy would be an ideal procedure in AUB wherever facilities are available.

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