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Original Research Article

Hysteroscopy in evaluation of intrauterine causes of AUB

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ABSTRACT

Background: Abnormal uterine bleeding is the most common gynecological problem comprising more than 30-50% of gynecological OPD patients. There are various causes of AUB from hormonal dysfunction to endometrial cancer. In order to manage effectively it is important to diagnose accurately the cause of abnormal bleeding. This study outlines the place of hysteroscopy and its role in evaluation of intrauterine causes of AUB.

Methods: This is a Retrospective cross sectional observational study conducted in department of Obstetrics and Gynaecology at CCM Medical College, Durg, Chhattisgarh. 350 Patients between 20-70 years age presenting to general gynae OPD with abnormal uterine bleeding at CCM medical college over a period of 2 years between 1st January 2015 to December 2016 were studied. All patients were subjected to thorough clinical evaluation followed by sonography and hysteroscopy. Data collected from medical records, analysed and various intrauterine causes of AUB were studied.

Results: Mean age of patients in our study was 45 years with majority of patients in 40-50 year age group. predominant complaint reported was menorrhagia (52%) followed by menometrorrhagia (18.86%) and polymenorrhoea (18.58%). USG detected abnormality in 65.6 % of cases and 34.4% were normal on USG but majority of these were fibroids and ovarian cysts. However, diagnosis of specific intrauterine pathology was made in only 12.8%. Hysteroscopy detected intrauterine abnormality in 60% cases. Most common being polyp in 94 patients (26.8%) followed by hyperplastic endometrium in 74 (21.1%). 18 (5.1%) patients had polypoidal endometrium which is also type of hyperplastic endometrium. 17 (4.85%) had submucous fibroid, 4 (1.1%) had atrophic lining and 3 (0.85%) had intrauterine adhesions. Diagnostic accuracy of hysteroscopy was found better in polyps and submucous myomas which were missed by usg and also can be missed by traditional D and C only.

Conclusions: Hysteroscopy allows exclusion of intracavitary pathology as well as treatment of them in same sitting with proper tissue biopsy from the abnormal area which can be of help in proper treatment planning. Though hysteroscopy helps in diagnosing cause of AUB their proper management will depend on final histology, age of patient and fertility goals.

Keywords: AUB, Hysteroscopy, Intracavitary pathology

INTRODUCTION

AUB is a common clinical presentation it amounts to 35% of gynae OPD visits and 25% of gynaecological surgeries and this incidence rises to 69% in peri and postmenopausal age.¹ There are various causes of AUB

from hormonal dysfunction to endometrial cancer .in order to manage effectively it is important to diagnose accurately the cause of abnormal bleeding.

Various methods used to diagnose the structural causes of AUB include ultrasonography, sonosalpingography,

hysteroscopy and D and C. Primary goal is to diagnose in the most efficient and least invasive manner.¹ Sonography is the standard diagnostic tool used as a first line investigation by most clinicians for diagnosis of AUB. Sonography is good for uterine abnormalities like fibroids and ovarian pathology, however it does not give any information about the uterine cavity.

Sonohysterography is used as an added method with usg for diagnosing intracavitary lesions but it can only diagnose and not treat it. Hysteroscopy permits direct visualization of uterine cavity and hence is good for intracavitary lesions. Hysteroscopy has added advantage of treating the condition in same sitting.

Diagnostic hysteroscopy and simple operative procedures is simple to learn and perform even by general gynaecologists with little bit of training and guidance. D and C and histopathological diagnosis of endometrial curettage has been the common tool used for diagnosis of abnormal uterine bleeding however certain intracavitary lesions can be missed by D and C.

This study was done to evaluate role of hysteroscopy in diagnosing intrauterine causes of AUB.

METHODS

This is a Retrospective cross sectional observational study conducted in department of Obstetrics and Gynecology at CCM Medical College, Durg, CG. Patients presenting to general gynae OPD with abnormal uterine bleeding at CCM medical college over a period of 2 years between 1st January 2015 to December 2016 were studied. All patients selected for study had a thorough evaluation with detailed history, clinical exam, lab tests and sonography followed by hysteroscopy and endometrial biopsy. Data collected from medical records, analysed and various intrauterine causes of AUB were studied

Inclusion criteria

All women of age group from 20-70 yrs presenting to OPD with abnormal uterine bleeding who did not require emergency management.

Exclusion criteria

Women with known or suspected pregnancy, pelvic infection, cervical cancer, PID, genital prolapse were not included in study.

RESULTS

Our study was conducted at CCM Medical College, Kachandur, Durg, CG. Patients coming to gynae OPD with AUB between 1st January 2015 and 31st December 2016 were studied from medical records.

Table 1: Distribution of patients according to age-group.

Age group	No. of patients	Percent
20-30 years	16	4.5
30-40 years	17	14.84
40-50 years	264	68.2
50-60 years	47	13.8
>60 years	6	1.7
Total		

Age group of patients in our study ranged from 20-70 years with a mean age of 45 yrs. Majority of patients 68.2% were in 40-50 years age group followed by 14.84% in 30-40 years age group and 13.8% in 50-60 years age group. 4.5% patients were in 20-30 years age group and 1.7% were above 60 years.

Table 2: Distribution of patients according to symptoms.

Symptoms	No. of patients	Percent
Menorrhagia	182	52
Metrorrhagia	8	2.29
Menometrorrhagia	66	18.86
Polymenorrhoea	65	18.58
Postmenopausal bleeding	29	8.29
Total	350	

Predominant complaint reported was menorrhagia by 52% patient, followed by menometrorrhagia in 18.86% and polymenorrhoea in 18.58%. 8.29% patients had postmenopausal bleeding and 2.29% patients presented with metrorrhagia.

Menorrhagia was considered for regular heavy bleeding during periods. Metrorrhagia for intermenstrual spotting or bleeding with regular cycles. Menometrorrhagia was considered for irregular heavy bleeding. Polymenorrhoea was considered when patient complained of short cycles with loss of regular cycles with or without heavy bleeding. Post menopausal bleeding was considered for women who were having no periods for 1 year and had an episode of bleeding after that.

Table 3: Hysteroscopy findings.

Finding	Total no	Percent
polyp	94	26.8
Hyperplastic endometrium	74	21.1
Polypoidal hyperplastic endometrium	18	5.1
Submucous fibroid	17	4.85
Atrophic endometrium	4	1.1
adhesions	3	0.85
Normal cavity	140	40
	350	

Incidence of positive findings on hysteroscopy was 60%. hysteroscopy showed normal cavity in 40% of our patients. Most common finding on hysteroscopy was polyp in 26.8% followed by hyperplastic thickened endometrium in 21.1% patients. 5.1% patients had polypoidal hyperplastic endometrium, 4.85% had submucous fibroid on hysteroscopy which was seen as bulge in the wall of uterus, other findings were atrophic lining in 1.1% cases and adhesions in 0.85% cases.

Table 4: USG findings.

Findings	Total no.	Percent
Normal	120	34.2
Polyp	25	7.14
Fibroid	95	27.1
Thickened endometrial lining	120	34.2
Ovarian cyst	15	4.28
Bulky uterus	25	7.14
Thickened endometrium with cystic spaces	6	1.7
Thick endometrium with cystic ovaries	12	3.4
Fibroid with ovarian cyst	6	1.7

USG detected abnormality in 65.6% of cases and 34.4% were normal on USG but majority of these were fibroids and ovarian cysts. However, diagnosis of specific intrauterine pathology was made in only 45 cases (12.8%).

Table 5: Correlation of USG finding and hysteroscopy finding.

Finding on hysteroscopy	
polyp	17
Thickened hyperplastic endometrium	13
Adhesion	2
Atrophic lining	2
Submucous fibroid	1
	35

35 patients with normal USG report in our study are diagnosed with polyp in 17 cases, 13 cases of thickened hyperplastic endometrium and 2 each of adhesions and atrophic lining and one case with submucous fibroid these cases will be missed without hysteroscopy.

Most cases of polyp and hyperplastic endometrium are reported as thickened endometrium on USG. Hysteroscopy helps to differentiate between endometrial polyp, endocervical polyp, hyperplastic endometrium or polypoidal hyperplastic endometrium. Management of all are different hence hysteroscopy helps to tailor the treatment to specific pathology. Polyps can be removed by hysteroscopy. In hyperplastic endometrium hysteroscopy guided biopsy from abnormal areas helps in making diagnosis and planning the treatment.

DISCUSSION

Age group of patients in our study ranged from 20-70 years with a mean age of 45 yrs. Majority of patients 68.2% were in 40-50 year age group followed by 14.84% in 30-40 year age group and 10.5% in 50-60 year age group. 4.5% patients were in 20-30 year age group and 1.7% were above 60 yrs.

Guin G et al studied 100 patients with AUB, they reported 39.74 years as mean age group of patients with a range of 18-60 years.² In their study majority of patients 40% were in 30-40 year age group followed by 34% in 40-50 year age group. Since they excluded lower genital malignancies from their study which usually affects women above 40, majority of patients in their study were in 30-40 year age group also they quoted that since majority of their patients were from lower socioeconomic background with lower life expectancy added with poverty and neglect they had fewer elderly women in their study population.

Shwarzler in his study of 104 patients reported women of various ages ranging from 26-79 years, Tahir studied 400 patients. All above 35 years.⁴ Gianninoto reported 512 women with AUB with ages ranging from 38-80 yrs and mean age of 63 years.^{3,5} In present study, predominant complaint reported was menorrhagia (52%) followed by menometrorrhagia (18.86%) and polymenorrhoea (18.58%). 8.29% patients had postmenopausal bleeding and 2.29% patients presented with metrorrhagia.

Menorrhagia was considered for regular heavy bleeding during periods, metrorrhagia for intermenstrual spotting or bleeding with regular cycles. Menometrorrhagia was considered for irregular heavy bleeding. Polymenorrhoea was considered when patient complained of short cycles with loss of regular cycles with or without heavy bleeding. Post menopausal bleeding was considered for women who were having no periods for 1 year and had an episode of bleeding after that.

Sciarra and Valle also reported similar findings with menorrhagia as their chief complaint in 49.6% cases.⁶ Hamou in his study also had menorrhagia as the predominant presenting complaint with 43.7% of his patients complaining of menorrhagia.⁶ Pasqualotto reported abnormal perimenopausal bleeding (56.3%) and postmenopausal bleeding (43.7%) as their chief complaint and indication for hysteroscopy.⁷

In present study incidence of positive findings on hysteroscopy was 60%. Other authors reported incidence of positive findings from 52% in study of Baggish and Barbot and Schwarzler, to 74% reported by Guin G et al and as high as 94.6% in Hamou's study.^{2,3,7,8} This incidence depends on the selection criteria of the author for their study population and also on the criteria for a positive hysteroscopy finding. Hysteroscopy showed normal cavity in 40% of our patients.

Hysteroscopy normal reassures women with AUB especially in perimenopausal and postmenopausal age group and also helps the clinicians to take proper decision regarding her treatment. Before hysteroscopy became popular women with all types of AUB even where uterus was normal were subjected to hysterectomy for fear of any uterine malignancy esp those above 40 years. Hysteroscopy can actually help reduce the incidence of hysterectomy by reassuring women and her gynecologist when no abnormality is detected and conservative treatment can be offered to these women. Women with postmenopausal bleeding esp fear for malignancy and but 80 % times the cause is benign like polyps and atrophic lining. These can be diagnosed and treated by simple measures without resorting to a major operation like hysterectomy

On hysteroscopy, the most common positive finding in our study was polyp in 94 patients (26.8%) followed by hyperplastic endometrium in 74 (21.1%). 18 (5.1%) patients had polypoidal endometrium which is also type of hyperplastic endometrium. 17 (4.85%) had submucous fibroid, 4 (1.1%) had atrophic lining and 3 (0.85%) had intrauterine adhesions. Incidence of polyp ranged from 9.1% in Hamou's study and 28% in Guin et al study.^{2,7} It was as high as 45.9% in pasqualotto series.⁹ Polyps can be easily treated hysteroscopically in the same sitting thus reducing need for hysterectomy.

Thickened Hyperplastic endometrium was found to be in 92 patients (26.2%) in present study. It was found to be 30% in study of Guin et al.² Hysteroscopic guided biopsy of hyperplastic endometrium is must for proper tissue diagnosis. It can be proliferative endometrium to simple hyperplasia or complex hyperplasia with or without atypia or malignancy.

Submucous fibroids was found in 17 patients (4.85%) in our study. It is reported in various studies as 16% by Guin et al, 28% by Schwarzlers.^{2,3} Other findings were atrophic lining in 4 (1.1%) patients. Atrophic endometrium was reported as 18% by Guin et al, 6% by Sciarra and Valle^{14.6%}, by Hamou et al 12.6% by Valle.^{2,6,7,11}

Finding of atrophic endometrium in patients with postmenopausal bleeding reassures the patient. As most of these patients otherwise are unnecessarily subjected to hysterectomy for no pathology. Intrauterine adhesions were found in 3 patients (0.85%) in present study. Other authors have reported higher incidence 4% by Guin et al, 12 % by Hamou et al and 8.5% in Cicinelli study.^{2,7,12} This can be treated by hysteroscopy.

USG detected abnormality in 65.6% of cases and 34.4 % were normal on USG but majority of these were fibroids and ovarian cysts. However, diagnosis of specific intrauterine pathology was made in only 45 cases (12.8%). 35 patients with normal USG report in our study are diagnosed with polyp in 17 cases, 13 cases of thickened hyperplastic endometrium and 2 each of

adhesions and atrophic lining and one case with submucous fibroid. These cases will be missed without hysteroscopy.

Most cases of polyp and hyperplastic endometrium are reported as thickened endometrium on USG. Hysteroscopy helps to differentiate between endometrial polyp, endocervical polyp, hyperplastic endometrium or polypoidal hyperplastic endometrium. Management of all are different hence hysteroscopy helps to tailor the treatment to specific pathology. Polyps can be removed by hysteroscopy. In hyperplastic endometrium hysteroscopy guided biopsy from abnormal areas helps in making diagnosis and planning the treatment.

USG detected more of fibroids and ovarian tumors. However, intracavitary lesions were not diagnosed with USG while hysteroscopy accurately diagnosed various intracavitary lesions like polyps, submucous fibroids, hyperplastic endometrium, atrophic lining or adhesions.

CONCLUSION

Diagnostic accuracy of hysteroscopy was found better in polyps and submucous myomas which were missed by usg and also can be missed by traditional D and C only. However, biopsy is still needed to diagnose the correct nature of polyp as benign or malignant or thickened hyperplastic endometrium can be simple hyperplasia or complex hyperplasia with or without atypia. This can be diagnosed with histobiopsy only hence in the proper evaluation of AUB USG, hysteroscopy as well as endometrial biopsy all have its role.

Though hysteroscopy helps in diagnosing cause of AUB their proper management will depend on final histology, age of patient and fertility goals. Thus hysteroscopy is complimentary to but not a substitute for tissue diagnosis. which is the gold standard. However, Hysteroscopy allows exclusion of intracavitary pathology as well as treatment of them in same sitting with proper tissue biopsy from the abnormal area which can be of help in proper treatment planning. Thus, all three modalities USG, hysteroscopy and biopsy are needed to make proper diagnosis of AUB and plan the treatment.

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