

EVALUATION OF ABNORMAL UTERINE BLEEDING BY HYSTEROSCOPY AND CURETTAGE.

Gynecology

Dr Kishankumar Kanani	Department of Obstetrics and Gynecology, N.H.L Medical College, Ahmedabad, Gujarat, India.
Dr. Payal Panchal	Assistant Professor, Department of Obstetrics and Gynecology, N.H.L Medical College, Ahmedabad, Gujarat, India.
Dr. Sushma Shah	Head Of Unit, Department of Obstetrics and Gynecology, N.H.L Medical College, Ahmedabad, Gujarat, India.
Dr Ami Mehta	Associate Professor, Department of Obstetrics and Gynecology, N.H.L Medical College, Ahmedabad, Gujarat, India.
Dr Anand Bhagde	Department of Obstetrics and Gynecology, N.H.L Medical College, Ahmedabad, Gujarat, India.

ABSTRACT

Background: Abnormal uterine bleeding (AUB) is a common gynecological disorder in women. It is vital to establish the correct diagnosis, hence in this regard we have studied the utility of hysteroscopy as a diagnostic procedure along with blind dilatation and curettage. The objectives of the study were hysteroscopic evaluation of abnormal uterine bleeding in reproductive and post-menopausal women. Hysteroscopic findings were compared with the histopathological reports following blind dilatation and curettage.

Methods: It is a prospective study on 50 women with symptoms of AUB. Detailed history and clinical examination with an ultrasound (USG) of pelvis to see for endometrial thickness and any structural abnormality was done. 50 cases were underwent for hysteroscopy. Endometrial biopsy was taken by blind dilation and curettage (D & C) and sent for histopathological examination (HPE). The hysteroscopic and histopathological findings were analyzed.

Results: Both hysteroscopy and (D & C) were accurate when an abnormality was diagnosed, giving a specificity of 96% and 100% respectively. The ability to diagnose a lesion was more with hysteroscopy i.e. sensitivity in comparison to curettage, (95.4% versus 100%). In intracavitary lesions like polyp, hysteroscopy gave 100% accuracy.

Conclusions: Hysteroscopy is a sensitive diagnostic procedure that provides useful information in all intracavitary lesions and has a higher sensitivity and specificity. A blind D & C for AUB may miss focal lesions including endometrial carcinoma, hence hysteroscopy is advisable.

KEYWORDS:

Abnormal uterine bleeding, Hysteroscopy, Endometrial polyp, Dilatation and curettage

INTRODUCTION

Abnormal uterine bleeding is one of the most common clinical problem in gynecology. Any deviation from the normal pattern of menstrual bleeding is called abnormal uterine bleeding. 1 Up to 33% of females attending to gynecological outpatient clinic have this problem and their number rises more in perimenopausal period. This condition has enormous consequences with regard to social life, morbidity and increased clinical work load [1]. It is estimated that women have one in 20 lifetime chance of suffering from heavy menstrual bleeding. In an effort to standardize method for classification, Federation of International Gynecology and Obstetrics [FIGO] in 2014 proposed PALM COEIN2. PALM (structural) P- polyp, A - adenomyosis, L-leiomyoma M- malignancy COEIN- (functional) C- coagulopathies, O - ovulatory dysfunction, E - endometrial, I - iatrogenic, N - not yet classified. The cause of the bleeding can be often discovered using simple methods such as per speculum and per vaginal examination. Hysteroscopy has superseded dilatation and curettage in the evaluation of abnormal uterine bleeding as hysteroscopy involves direct visualisation of uterine cavity and biopsy can be taken under direct visualisation. "a vigilant eye in the uterine cavity is better than blind curettage" - Lidmann.³

Aim:

The aim of this study is to assess the role of hysteroscopy for identifying abnormal findings in the uterine cavity of peri menopausal women presented with abnormal uterine bleeding and to correlate hysteroscopic and histopathological findings.

Material and methods:

Study involves 50 females with abnormal uterine bleeding attending OPD of a tertiary care hospital. Women of age group above 20 years were included in this study. The patients with adnexal mass, hypertension, diabetes, thyroid, and bleeding diathesis were excluded from the study. The patients were seen in outpatient department

,detailed menstrual history both systemic and gynecological examination was done, usg pelvis done. Patients were admitted on day 7 to day 10 of their menstrual cycle in case of post menopausal women they were prepared and admitted when their bleeding got controlled with tranexamic acid. Hysteroscopy was performed in all the patients in operation room with intravenous sedation by using the rigid hysteroscope of 4mm with grasping and dilation of cervix and normal saline was used as a distending medium. Endometrial biopsy was performed and samples were sent to histological examination. Endometrium was described as atrophic when thin and pale, hyperplastic when it was thickened and with polyp appearance. Endometrial carcinoma was pronounced in the event of irregular growth of endometrium with atypical vascularisation as focal intrauterine lesions polyps, submucous myomas were removed in the same settings and also directed to histology examination. All the patients were discharged from the hospital after 24 hours of the intervention.

RESULTS:

Age group of patients ranged from 31-40 years had higher prevalence of AUB. Comparison of hysteroscopic and histopathologic results show that the sensitivity of hysteroscopy in detection of intrauterine pathology was 95.4%, specificity 96.4%, positive predictive value was 95.4% and the negative predictive value was 96.4%.

Age distribution of AUB patients

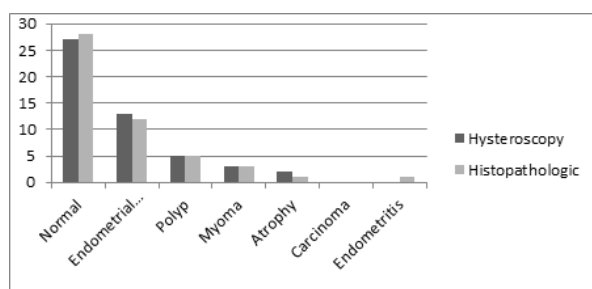
Age	Number of patients
21-30	8 [16%]
31-40	18 [36%]
41-50	14 [28%]
>51	9 [18%]

Distribution of patients according to menstrual abnormality in AUB (n=50)

Heavy menstrual bleeding	20 [40%]
Irregular menstrual bleeding	12 [24%]
Short menstrual bleeding	5 [10%]
Infrequent menstrual bleeding	4 [8%]
Postmenopausal bleeding	9 [18%]
	50

Distribution of patients according to hysteroscopic findings(n=50)

	Hysteroscopic	Histological
Normal	27 (54%)	28 (56%)
Endometrial hyperplasia	13 (26%)	12 (24%)
Endometrial polyp	5 (10%)	5 (10%)
Endometrial myoma	3 (6%)	3 (6%)
Atrophy	2 (4%)	1(2%)
Endometrial carcinoma	0	0
Endometritis	0	1(2%)



Hysteroscopic and histopathologic correlation

Sensitivity and specificity of hysteroscopy

	Hysteroscopy	Histopathologic
Sensitivity	95.4%	100%
Specificity	96.4%	100%
PPV	95.4%	94.3%
NPV	96.4%	94.4%
ACCURACY	96%	100%

Comparison of validities of different intrauterine pathologies

	SENSITIVITY	SPECIFICITY
ENDOMETRIAL HYPERPLASIA	92.30	100
POLYP	100	100
SUBMUCOUS MYOMA	100	100
ATROPHY	66.67	100

COMPARISON OF SENSITIVITY AND SPECIFICITY OF HYSTERISCOPY WITH THE STUDY OF OTHER AUTHORS			
AUTHORS	NO OF CASES	SENSITIVITY	SPECIFICITY
Allameh ⁹	105	100%	80.5%
Kelkeci ¹³	102	87.5%	100%
Tandulwadkar ¹⁰	60	97%	98%
Jakab ¹²	100	100%	96%
Chaudhri Kr sathe p ¹⁴	98	98.3%	80.5%

H valson ¹⁵	50	90.9%	96.4%
Present study	50	95.4%	96.4%

COMPARISON OF COMMONEST ENDOMETRIAL PATHOLOGY WITH OTHER AUTHORS			
AUTHORS	HYPERPLASIA	POLYP	MYOMA
SP TRAJKOVIC ⁵	8.5%	20.5%	7.7%
GUIN GEETA ⁷	30%	28%	16%
SINGH S et al ⁴	26%	8%	7%
Aisa Razzaq ⁶	17%	18.8%	11.3%
H valson ¹⁵	12%	16%	4%
Present study	24%	10%	6%

DISCUSSION:

With the aim of solving problem of abnormal uterine bleeding, a precise diagnostics is required. Hysteroscopy is a superior method that has high sensitivity and specificity in diagnosing the cause of abnormal uterine bleeding due to the fact that intrauterine pathology is directly visualized. The direct real time visualization, real color, hydrated, well illuminated, and augmented vision of the uterine cavity make this diagnostic tool very accurate to detect minute focal endometrial pathology and small lesions and helping us to take direct biopsies. Hysteroscopic examination predicts endometrial lesions with a good accuracy as well as endometrial aspect characterization, adopting a nomenclature similar to that used by pathologist. In this study there were no operative complications. In the large study done by Singhi et al, the complication rate was 0.6%.⁸ The complication in comparison to d&c are much lower as hysteroscope is inserted under vision. In our series of patients endometrial polyp and endometrial hyperplasia were predominant with symptoms of heavy menstrual bleeding. The abnormal finding on hysteroscopy ranged from 50 to 74 % in other studies. Our study showed abnormality in 22(44%) cases on hysteroscopy, commonest was endometrial hyperplasia 12 (24%), followed by polyp 5(10%) and submucous myoma 3(6%). One case which was diagnosed normal by hysteroscopy, turned out to endometritis by histopathology. The study of Van Dongen, Allameh et al; Tandulwadkar et al and Pasqualotto et al reported a high sensitivity and specificity of hysteroscopy in diagnosis of intracavitary pathologies.^{9,10,11} In our present study detection of intracavitary lesion was 100%. Hysteroscopy diagnosed polyp, hyperplasia, submucous myoma with 100% accuracy. The confirmation of the diagnosis was made from specimen sent for histopathology, thereby yielding sensitivity, specificity, PPV, NPV of 100%. Patil et al and Panda et al also reported accuracy of 100% in the diagnosis of endometrial polyp and submucous myoma. In one of the latest study done by Chaudhari Kr, Sathe P, the sensitivity, specificity, PPV, NPV and accuracy of diagnostic hysteroscopy in the study was 98.3%, 80.5%, 89.7%, 96.7% and 91.8% respectively.¹⁴ In our study, hysteroscopy had sensitivity of 95.4%, specificity of 96.4%, PPV of 95.4% and NPV of 96.4% and accuracy of 96%.

CONCLUSION:

Hysteroscopic visualisation of endometrium is an important tool, in addition to dilatation & curettage and HPE; for an accurate diagnosis of abnormal uterine bleeding pathologies. D & C can miss focal lesions which can be picked up by hysteroscopy. Endometrial biopsy under hysteroscopic guidance can play a supporting role in supplementing the diagnostic accuracy of hysteroscopy. D&c in some conditions be therapeutic; when combined with hysteroscopic operative procedures such as polypectomy, focal lesion, biopsy; etc. Adequate diagnosis is crucial for the selection of relevant treatment of abnormal uterine bleeding and avoidance of unnecessary major surgical procedure.

References

- ESHRE Capri Workshop Group, Collins J, Crosignani PG. Endometrial bleeding. Hum Reprod Update 2007; 13(5): 421-31.
- Munro MG, Critchley HOD, Broder MS, Fraser IS. FIGO classification system (PALM-COEIN) for causes of abnormal uterine bleeding in nongravid women of reproductive age. International Journal of Gynecology and Obstetrics. 2011; 113:3-13.
- Bradley H, Nezhat F. Hysteroscopy. In: Nezhat C. Nezhat's operative gynecologic laparoscopy and hysteroscopy. New York: Cambridge University press. 2008; 577-9.
- Singhi A. Comparison of complications rates in endoscopic surgery performed by a clinical assistant vs. An experienced endoscopic surgeon. J Gynecol Endosc Surg. 2009; 1(1):40-6.
- Trajkovic Dinic SP, Kopitovic V, Antic V. Role of hysteroscopy in evaluation of patients with Abnormal uterine bleeding. Scientific Journal of the faculty of medicine in Nis. 2011; 28(3):177-81.

6. Razzaq A, Shukar-ud-Din S, . Role of diagnostic hysteroscopy in case of AUB. Pak J Surg. 2011;27(4):309-15.
7. Gita G, Kaur SS, Arvind L, Shashi K. Hysteroscopy in evaluation of abnormal uterine bleeding. The journal of obs and gyn of India. 2011;61(5):546-9
8. Singh S, Taneja BK, Singh P, Ahlawat R. Role of diagnostic hysteroscopy in abnormal uterine bleeding. Int J Reprod Contracept Obstet Gynecol. 2014;3(3):544-51.
9. Allameh T, Mohammadiazadeh F. Diagnostic value of hysteroscopy in abnormal uterine bleeding compared to pathology reports. Iran J Reprod Med. 2007;5(2):61-4.
10. Tandulwadkar S, Deshmukh P, Lodha P, Agarwal B. Hysteroscopy in postmenopausal bleeding. J Gynaecol Endosc Surg. 2009;1(2):89-93.
11. Pasqualotto EB, Margossian H, Price LL, Bradley LD. Accuracy of preoperative diagnostic tools and outcome of hysteroscopic management of menstrual dysfunction. J Am Assoc Gynecol Laparosc. 2000;7:201-9.
- 12.. Jakab AJ, Ovari L, Juhasz B, Birinyi L, Bacsko G, Toth Z. Ultrasound diagnosis of focal intrauterine lesions. Orv Hetil. 2002;143:1739-43.
13. Kelekci S, Kaya E, Alan M, Alan Y, Bilge U, Mollamahmutoglu L. Comparison of transvaginal sonography , saline infusion sonography, and office hysteroscopy in reproductive-aged women with or without abnormal uterine bleeding. Fertil Steril. 2005;84:682
14. Chaudhari KR, Sathe P. Role of diagnostic hysteroscopy in evaluation of abnormal uterine bleeding and its histopathological correlation. Int J Reprod Contracept Obstet Gynecol. 2014;3:666-70
15. Valson H et al. Int J Reprod Contracept Obstet Gynecol. 2016 Mar;5(3):609-614