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ENDOMETRIAL BIOPSY IN PERIMENOPAUSAL ABNORMAL UTERINE BLEEDING IN A RURAL MEDICAL COLLEGE

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ABSTRACT:
AIM: This study was designed to define diagnostic value endometrial biopsy to determine the causes of in perimenopausal abnormal uterine bleeding by blind dilatation & curettage.

SETTING: The study was done in PRM Medical College & Hospital, Baripada, Odisha, India. The study period extended from August 2019 to August 2020.

METHODS: 100 patients in perimenopausal age group with abnormal uterine bleeding underwent D&C under short general anaesthesia or IV sedation . The findings of histopathology study were analysed for diagnostic acuracy and the causes.

CONCLUSION: Endometrial biopsy is a valuable, simple, low-risk technique in rural areas which allows an adequate exploration of uterine cavity. It ensures speed and safety with the diagnosis and treatment. The results are immediately available. It allows finding out the cause of bleeding and histopathology is considered as the **“** gold standard**”** in evaluating a case of perimenopausal abnormal uterine bleeding.

INTRODUCTION:

Abnormal uterine bleeding is one of the most common presenting symptoms in the gynaecologic clinics. Approximately 20% of patients presenting to a gynaecologist have this complaint. This proportion rises to 69% when the perimenopausal age groups are considered. The transitional period of time before menstruation completely stops is referred to as perimenopause. Perimenopause generally starts between one and six years before menopause, it can actually start up to 10 years before menopause. And, with the average age of menopause being 51 years of age, that starting age for perimenopause could be as young as 41 years old.

The causes of abnormal uterine bleeding are diverse and differentiating whether the source is the result of anovulation or anatomic lesions can be challenging to the gynaecologist. The commonest investigation carried out in the work up of patients of abnormal uterine bleeding is dilatation and curettage. However, the value of endometrial curettage is in the establishment of histopathologic

diagnosis. However prior visualisation of uterine cavity followed by targeted biopsies as and when required is the rational basis of management of abnormal uterine bleeding than a blind curettage in the present time. Due to high accuracy and patient compliance endometrial biopsy and histopathology remains a first line investigation in perimenopausal abnormal uterine bleeding.

MATERIALS & METHODS:

This was a descriptive analytic study conducted prospectively from August.2019 to August 2020 on patients in perimenopausal ages with complaint of AUB attending the Gynaecology OPD of PRM. Medical College Baripada. 100 patients were selected from age group 40 to 50 yrs who got admitted excluding those having local pathology in vulva, vagina, cervix or urethra (both benign & malignant) and having pituitary, thyroid, adrenal or ovarian pathology, PID or secondary to hormonal medications, pregnancy complications. Patients were subjected to detailed history, examination, and investigations. Only those patients who declared fit by anesthesiologist and cardiologist were enrolled for the study . The patients then underwent dilatation and curettage and endometrium was sent for histopathology study. The correlation between findings on clinicalexamination ,USG and histopathologic examination were tabulated. No postoperative complications were encountered in any of the cases.

RESULTS:

In the study the age of patients varied from 40 years to 50 years. Abnormal uterine bleeding was most prevalent among women of 40-45 years (63%) (Table1). Commonest affected patients were multiparous and least affected were nullipara and primipara (Table1). From the 100 cases studied, exactly 50% of cases belonged to lower socioeconomic strata, 40% cases to middle socioeconomic strata and 10% of the cases belonged to higher socioeconomic strata. In the study 38% of the cases had abnormal uterine bleeding for 6months to 1 year. 30% of the cases presented after 1year of abnormal uterine bleeding and 6% cases presented after 2 years because abnormal uterine bleeding is mostly neglected in our country. The commonest type of presentation was menorrhagia in 56% of cases followed by polymenorrhagia (16%). Patients presented with metrorrhagia, menometrorrhagia, polymenorrhea, metropathic haemorrhage and were 10%, 08%, 06%, 04%, respectively (Table2). Out of 100 patients, 15% of cases had hypertension. 5% of patients were diabetic, 11% had undergone dilatation & curettage in past for AUB. 12% of cases had previous history of caesarean section. 12% cases had suction & evacuation for 1st trimester MTP. On histopathology Normal endometrium was found in 51% of the patients. Abnormal histological pattern was seen in 49% of cases. Hyperplasia was the commonest abnormality seen in 23% of cases (Table4). Out of these 23 cases, 19 cases were confirmed on histopathology to have proliferative endometrium. The remaining 4 cases showed secretory in 3 cases and hyperplasia in 1 case. Among these 12 cases were confirmed on histopathology. Other 2 cases had normal endometrial pattern. Out of 6 cases of endocervical polyp on USG , 5 were confirmed on histopathology . Submucous myoma was detected in 10 cases on USG. Two cases were confirmed on histopathology as fibroid polyp. Four cases showed normal endometrium and four cases had hyperplasia (simple-3, complex-1) on histopathology . Seven cases were confirmed on hysterectomy specimen and one after myomectomy. Atrophic endometrium was found in three cases on USG, out and all the cases were confirmed on histopathology. On USG seven cases were found to have irregular uterine cavity, out of which 3 cases showed hyperplastic endometrium (simple hyperplasia-2, complex hyperplasia-1), 2 cases of proliferative, 2 cases of secretory endometrium on histopathology. Forgotten intrauterine device was detected in 2 cases on hysteroscopy.

DISCUSSION:

Group 1: Endometrium Pattern : Proliferative endometrium was found in 23(23%) cases on USG. Among these 19 cases confirmed on histopathology and findings were different in 4 cases. Diagnostic accuracy for proliferative endometrium was 82.6%. Sensitivity, Specificity, Positive predictive value, negative predictive value of proliferative endometrium on histopathology were

65.55%, 94.36%, 82.60%, 87.01% respectively. Present study reports secretory endometrium was confirmed in 12(12%) cases on histopathology. Three cases differed in diagnosis. Diagnostic accuracy of histopathology for secretory endometrium was 80%. Sensitivity, Specificity, Positive predictive value, negative predictive value of histopathology for secretory endometrium were 54.54%, 96.15%, 80%, 88.23% respectively.

In this study hyperplasia was detected on histopathology with accuracy of 87%. Sensitivity, Specificity, Positive predictive value, negative predictive value of histopathology for hyperplastic endometrium in this study was 60.86, 97.46, 87.5, 82.28% respectively. In our study 3(3%) cases were diagnosed as atrophic endometrium on USG. Diagnostic accuracy in this study is 100%. So Sensitivity, Specificity, Positive predictive value, Negative predictive value ofenometrial biopsy for atrophic endometrium is 100% each.

Group 2: patients with endometrial polyp and cervical polyp: Diagnostic accuracy of histopathology for endometrial polyp in our study was 89% when compared toUSG. So Sensitivity, Specificity, Positive predictive value, Negative predictive value of histopathology for endometrial polyp were 100, 97.61, 88.88, 100% repectively.

Group 3: patients with submucous myoma: In our study 10(10%) cases of submucous myoma were detected on USG. But 8 cases were detected by histopathology on curettage. But all the cases were confirmed from hysterectomy and myomectomy specimen. Thus considering the final diagnosis the diagnostic accuracy of histopathology for submucous myoma is 100%. So Sensitivity, Specificity, Positive predictive value, Negative predictive value of hysteroscopy for submucous myoma is 100% each.

Group 4: patients with intrauterine devices: In our study we detected two (2%) cases of IUD with diagnostic accuracy, Sensitivity, Specificity, Positive predictive value, Negative predictive value of hysteroscopy of 100% respectively.

Conclusion:

Over the years endometrial curettage has remained the gold standard for evaluation of abnormal uterine bleeding. Several studies however questioned the accuracy of this blind traumatic procedure even in the best of hands. With blind curettage 75-85% of the endometrium is curetted. Structural lesions like submucous fibroids are missed. Misplaced IUDs are usually missed in blind curettage.

Endometrial biopsy is a valuable, simple, low-risk technique which allows an adequate exploration of uterine cavity under visual control. It ensures speed and safety with the diagnosis and treatment. The results are immediately available. It allows finding out the source of bleeding and perform a directed biopsy from the suspected area. Thus to conclude hysteroscopy offers an advantage of direct visualisation of any abnormality within the uterine cavity. It does not substitute other diagnostic procedures, rather complements them. It is well accepted by patients. It is a very good tool in patients who are high risk for general anaesthesia as the procedure can be performed under local anaesthesia.

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Disclosure:

None of the authors have any financial relationships with companies that may have a financial interest in the information contained in the manuscript. None of the authors have any potential conflict of interest.

Age group	Parity of patients				
	Nullipara	Primi para	Multipara	Grand multipara	Total
40-45yrs	02	06	41	14	63
46-50yrs	00	02	28	07	37
Total	02	08	69	21	100

Table 1: Distribution of patients according to age & parity

Symptoms	No. Of cases	Percentage
Menorrhagia	56	56%
Polymenorrhea	06	06%
Polymenorrhagia	16	16%
Metrorrhagia	10	10%
Menometrorrhagia	08	08%
Metropathia haemorrhagica	04	04%
Total	100	100%

Table 2: Distribution of patients according to symptoms

Table :2 USG Finding	**No. Of cases**	**percentage**
Proliferative endometrium	23	23
Secretory endometrium	15	15
Hyperplasia	16	16
Endometrial polyp	18	18
Submucous myoma	10	10
Atrophic endometrium	03	03
Forgetten IUCD	02	02
Irregular uterine cavity	07	07
Enocervical polyp	06	06
Total	100	100

Histopathology findings			No of cases	Percentage	
Normal	Proliferative		29	29%	51%
	Secretory		22	22%	
Abnormal	Hyperplasia	Simple	14	14%	49%
		Complex	09	09%	
	Endometrial polyp		16	16%	
	Endocervical polyp		05	05%	
	Fibroid polyp		02	02%	
	Atrophic endometrium		03	03%	
Total			100	100%	

Table 4: Histopathology findings

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