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Original Research Article

A retrospective study of endometrial histopathology in abnormal uterine bleeding patients

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ABSTRACT

Background: Abnormal uterine bleeding (AUB) is one of the most commonly encountered gynecological problem and almost 33 % of women in gynecological outpatient department presented with abnormal uterine bleeding. Dilatation and curettage (D and C) have been the main diagnostic procedure in the evaluation of abnormal uterine bleeding patients for decades. The objective of the present study was to analyze the different types of endometrial histopathology of patients presented with the abnormal uterine bleeding and its correlation with the different types of abnormal uterine bleeding

Methods: This is a retrospective study, conducted in a medical college in the Department of Obstetrics and Gynecology over a period of one year from June '17 to June '18. All cases of AUB more than 35 years of the age group who underwent D and C procedure were included in this study. Total 100 patients were analyzed.

Results: Total 100 patients were analyzed. Age group ranges from 35-58 years and most common age group presenting with AUB was 35-39 years. The most common presenting complaint was menorrhagia 54% (54/100). Histopathology of endometrium showed non-organic causes in 80% (80/100) of AUB patients and the remaining 20% (20/100) had organic causes. Most common endometrial histopathology among non-organic causes was proliferative endometrium 43.75% (35/80) and the most common organic cause was endometrial polyp 40% (8/20). Endometrial hyperplasia was found in 30% (6/20) and endometrial carcinoma was found in 20% (4/20) of cases among organic causes.

Conclusions: D and C is the useful and the cost-effective diagnostic procedure in the evaluation of AUB. Histopathological evaluation of endometrial samples is especially indicated in AUB patients to rule out carcinoma and preneoplastic conditions as histopathology is 100% diagnostic in cases of endometrial hyperplasia and carcinoma.

Keywords: Abnormal uterine bleeding, Dilatation and curettage, Histopathology

INTRODUCTION

Abnormal uterine bleeding is defined as any abnormality in the bleeding pattern in terms of frequency, duration, amount and cyclicity.¹ It includes both the non-organic and organic causes (structural) of endometrium. Abnormal uterine bleeding (AUB) is the most commonly encountered Gynecological problem and almost 33 % of women in Gynecological outpatient department presented

with abnormal uterine bleeding and incidence rises in peri- and postmenopausal women. This condition has enormous consequences with regard to social life, clinical workload and morbidity.² Endometrial carcinomas may clinically present as AUB in 8-50% of cases.³ In perimenopausal and menopausal females who presented with AUB, the risk of endometrial hyperplasia and carcinoma are increased and D and C plays an important role in diagnosing these conditions.⁴ The cause of the bleeding

can be often diagnosed by simple gynecological and speculum examinations. The transvaginal ultrasound is a diagnostic tool which has a low specificity and sensitivity in diagnosing the cause of bleeding.⁵ Dilatation and curettage (D and C) have been the main diagnostic procedure in the evaluation of abnormal uterine bleeding patients for decades.

The introduction of hysteroscopy opened a new dimension in the evaluation of a patient with abnormal uterine bleeding and it has replaced the D and C procedure as it affords a more accurate diagnosis than D and C for intrauterine pathologies which are pedunculated but for hyperplasia and carcinoma endometrium, histopathological evaluation of endometrium is 100% diagnostic, and D and C is cost-effective as compared to hysteroscopy.

The aim of this study is to analyze the varied types of histopathology of endometrium in AUB patients and its correlation with the different types of AUB (clinical presentation).

METHODS

A retrospective analysis including 100 patients was conducted in a medical college in the Department of Obstetrics and Gynecology over a period of one year from June '17 to June '18. Patients, more than 35 years of the age group who presented with an AUB and underwent D and C procedure were included in this study. Patients who were on hormonal therapy were excluded from the study. Data regarding the age, presenting complaints, any significant past history, examination findings, ultrasound findings, Intra-operative findings and histopathology report were retrieved from the medical records and were recorded in the structured Performa.

Histopathological findings were divided into two broad categories, AUB due to non-organic and organic causes. Non-organic includes proliferative, secretory, disordered proliferative and atrophic. Organic causes include endometrial carcinoma, tubercular endometritis, endometrial polyp and endometrial hyperplasia. Histopathological findings were correlated with the clinical presentations of the patient.

Statistical analysis

Statistical package for social sciences (SPSS - Version 20) was used to carry out the statistical analysis of data. The analysis was done in the form of percentages and proportions and represented as tables where necessary.

RESULTS

Total 100 patients were included in this study. Age group ranges from 35-58 years and most common age group presenting with AUB was 35-39 years 50% (50/100). In

more than 55years group only 2% (2/100) patients were there (Table 1).

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

Age group (years)	Number of patients (100)
35-39	50
40-44	27
45-49	17
50-54	4
≥ 55	2

The most common clinical presentation was menorrhagia in 54% of cases (54/100) followed by polymenorrhagia 12%, metrorrhagia 12%, postmenopausal bleeding 10%, polymenorrhea 8% and oligomenorrhea 4% (Table 2).

Table 2: Distribution of patients according to the clinical presentation.

Clinical presentation	Number of patients (100)
Menorrhagia	54
Polymenorrhoea	8
Polymenorrhagia	12
Postmenopausal bleeding	10
Metrorrhagia	12
Oligomenorrhoea	4

Out of total 100 patients, 80% (80/100) patients had AUB due to non-organic causes of the endometrium and 20% (20/100) had organic causes. Among non-organic causes, most common histopathology was proliferative endometrium 43.75% (35/80) and the most common organic cause was endometrial polyp 40% (8/20). Endometrial adenocarcinoma was present in 20% (4/20) of organic causes (Table 3).

Table 3: Distribution of patients according to the histopathological findings and organic and non-organic causes.

Histopathological pattern	Number of patients (100)
Non-organic causes	80 (80%)
Proliferative endometrium	35 (43.75%)
Secretory endometrium	23 (28.75%)
Atrophic endometrium	10 (12.5%)
Disordered proliferative endometrium	12 (15%)
Organic causes	20 (20%)
Endometrial hyperplasia with atypia	2 (10%)
Endometrial hyperplasia without atypia	4 (20%)
Tubercular endometritis	2 (10%)
Endometrial polyp	8 (40%)
Endometrial adenocarcinoma	4 (20%)

When the histopathology of endometrium was correlated with the clinical presentations, menorrhagia (54%), the most common complaint showed proliferative

endometrium in 50% (27/54) of cases. Endometrial carcinoma (4%) presented as menorrhagia in 50% (2/4)

of cases and postmenopausal bleeding in the remaining 50% (2/4) of cases. (Table 4)

Table 4: Distribution of patients according to clinical presentation and histopathological findings.

Clinical features	Histopathology								Total
	Proliferative	Secretory	Disordered proliferative	Atrophic	Endometrial hyperplasia	Tubercular	Polyp	Carcinoma	
Menorrhagia	27	15	3	-	4	-	3	2	54
Polymenorrhoea	-	2	1	5	-	-	-	-	8
Metrorrhagia	2	3	4	-	-	-	3	-	12
Postmenopausal bleeding	2	1	-	2	2	-	1	2	10
Oligomenorrhoea	-	-	-	2	-	2	-	-	4
Polymenorrhagia	4	2	4	1	-	-	1	-	12
Total	35	23	12	10	6	2	8	4	100

DISCUSSION

Abnormal uterine bleeding is the common problem among gynecological patients and it has been determined that approximately 6% of women in reproductive age group visit OPD due to excessive menstrual loss every year.⁶ AUB is of concern because it may have medical and social repercussion, as excessive bleeding may cause interference in daily activities and sexual life. AUB needs a complete evaluation by the combination of physical examination, ultrasound findings and histopathological diagnosis.⁷ Majority of AUB cases had benign pathology on histopathological evaluation, so histopathology of the endometrium is an important parameter for a restrictive approach, in order to avoid unnecessary hysterectomies. Endometrial assessment is important for the diagnosis of endometrial carcinoma and preneoplastic conditions, in which histopathology is 100 % diagnostic and a gold standard investigation. It is also required in patients where bleeding is not improving after medical therapy.⁶

A total of 100 endometrial samples of AUB patients were analyzed. Maximum patients were in 35-39 years of age group. Age was an important factor as the age advances more progressive lesions were found in histopathology as compared to the reproductive age group. The most common presenting complaint in this study was menorrhagia (54%) and results are similar to the study conducted by Verma et al with the similar sample size of 100 patients, this study showed menorrhagia as the most common complaint in 57% of cases. Jairapuri et al also showed similar results, menorrhagia as the most common complaint (41%).^{8,9} Out of 100 histopathology's, 80 % showed benign non-organic endometrial cause and remaining 20% showed organic cause which is comparable with the study conducted by Gon et al which showed non-organic causes in 80.01% and organic pathology in 19.01% of cases.³

Most common histopathology among non-organic causes was proliferative endometrium (35%) which is

comparable with the study by Ghani et al and most common organic pathology was endometrial polyp (8%) which is similar to the study conducted by Gon et al which showed endometrial polyp in 8.6% of total cases as the commonest organic pathology.^{3,10}

Gon et al showed endometrial carcinoma in 4.6% (7/151) of cases and 42.8% (3/7) were found in patients presented with the postmenopausal bleeding and remaining 57.1% (4/7) in patients with menometrorrhagia. Similar results were found in present study, carcinoma in 4% (4/100) of cases and 50% (2/4) in postmenopausal bleeding and 50% (2/4) in menorrhagia cases. Shrestha et al also showed that endometrial carcinoma is most commonly found in postmenopausal age group.¹¹

So, histopathological diagnosis of endometrium in AUB patients is an important and a necessary investigation for appropriate planning of optimal treatment in these patients and to prevent the development of endometrial carcinoma.¹² AUB in perimenopausal and postmenopausal patients is alarming and needs meticulous evaluation because it could be the only clinical symptom of endometrial carcinoma and preneoplastic conditions in these patients.

CONCLUSION

D and C is the useful and the cost-effective diagnostic procedure in the evaluation of AUB. Menorrhagia is the most common presenting complaint among AUB patients. Histopathology of the endometrium is especially recommended in AUB patients to rule out carcinoma and preneoplastic conditions as the histopathology is 100% diagnostic in these cases. This particular study establishes the good diagnostic yield of dilatation and curettage in AUB patients.

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