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Original Article

Endometrial Pathology pattern in Abnormal Uterine Bleeding on D&C-A Hospital Based Study

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ABSTRACT

Introduction: Any bleeding coming out from uterus other than menstruation is abnormal uterine bleeding. It is major gynaecological problem leading to gross ill health especially in peri-menopausal and meno-pausal age group. It becomes mandatory to find the endometrial pattern in such cases to analyse the pattern of abnormal uterine bleeding.

Material & Methods: 450 patients reported with dysfunctional uterine bleeding during a period of one year (2019) in the department of Obstetrics & Gynaecology in a tertiary care hospital. Out of which 100 patients satisfied our inclusion and exclusion criteria. This was prospective study & was done to determine the types and frequencies of endometrial pathologies in women presenting with abnormal uterine bleeding who underwent endometrial sampling by Dilatation & Curettage. The data was presented in frequency and percentage. Correlation was found between the age & endometrial findings and between type of clinical symptom presentation & endometrial findings.

Results: 100 patients were included in the study according to the chosen inclusion and exclusion criteria. The majority of cases (38%) belong to the age group of 31-40 years followed by 32% in the age group of 41-50 years. DUB was more common in multiparous women (61%) followed by grand multiparous (19%) and nulliparous (20%). 67% of patients were of normal weight, 13% underweight and 20% were overweight.

Conclusion: Evaluation of women presenting with dysfunctional uterine bleeding is absolute necessity to detect underlying pathologies. The endometrial sampling is an important diagnostic tool in the management of abnormal uterine bleeding. The cause of DUB is strongly related to patient age, type of menstrual cycle and menopausal status.

Key Words: *Abnormal uterine bleeding, Dilatation, Curettage, Endometrium, Histo-pathology*

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INTRODUCTION

Any bleeding coming out from uterus other than menstruation is abnormal uterine bleeding. Abnormal uterine bleeding may be defined as a bleeding pattern that differs in frequency, duration, and amount from a pattern observed during a normal menstrual cycle or after menopause [1]. It includes both dysfunctional uterine bleeding (DUB) and bleeding from structural causes like fibroids, polyps, endometrial carcinoma, and pregnancy complications. A demonstrable organic cause is not seen in DUB and endometrial curettage plays an important role in excluding organic uterine disorders [2, 3]. It is also defined as change in frequency of menstruation, duration of flow or amount of blood loss [4]. In active reproductive life an organic cause for bleeding is more likely, pregnancy-related conditions being the most common. After the age of 40 years, functional disorders are common but the possibility of a growth, benign or malignant, must be excluded. After the menopause, a local organic cause (the most common being cancer) is often present [5].

Abnormal uterine bleeding is major gynaecological problem, especially in peri-menopausal and meno-pausal age group. In women > 40 years in menopausal women it is very mandatory to evaluate and confirm the benign nature of endometrium by ruling out endometrial carcinoma. It is done by doing diagnostic dilatation and curettage method and histo-pathologic analysis of endometrium to design the definitive treatment of the cause, whether medical or conservative surgical or radical surgical treatment. Main aim of D&C is not only to find cause but to rule out malignancy. Endometrial sampling should be performed to evaluate abnormal bleeding in women who are at risk for endometrial polyps, hyperplasia, or carcinoma. It is mandatory in the evaluation of anovulatory bleeding in women older than 35 to 40 years of age, in younger women who are obese, and in those with a history of prolongedanovulation [6]. The

present study was done to evaluate various pathological features in endometrial curettage of patients of different age groups presenting with dysfunctional uterine bleeding and correlating them with clinical presentation.

Objectives

1) To determine Histo-pathological pattern (HPE) of endometrium in patients with abnormal uterine bleeding on Dilatation & Curettage (D&C) procedure.
2) To estimate the prevalence of various pathological conditions in endometrium in different age groups.
3) To correlate histo-pathological findings with clinical presentation.

MATERIAL & METHODS

450 patients reported with dysfunctional uterine bleeding out of which 100 patients satisfied our inclusion and exclusion criteria. This was prospective study done on 100 patients presenting with dysfunctional uterine bleeding during a period of one year from 16th March 2018 to 15th March 2019 in the department of Obestetrics & Gynaecology of Punjab Institute of Medical Sciences, Jalandhar. Ethics clearance from institutional Ethics committee was taken for this study.

Inclusion Criteria:

Patients with irregular P/V bleeding including cases presenting with Menorrhagia, Poly-menorrhagia, meno-metrorrhagia, post-menopausal bleeding, delayed menopause > 48 years with obesity, PCOS were includedin the present study.

Exclusion Criteria:

Adolescent age groups and Patient with pregnancy related complications including missed, incomplete abortion, molar pregnancy, ectopic pregnancy, case with Acute PID, in situ IUCD, and on hormonal treatment for abnormal uterine bleeding were excluded from the study.

After satisfying inclusion and exclusion criteria, written informed consent was taken from the patients. Detailed clinical history followed by General physical examination, Systemic and gynaecological examination was done.Pelvic ultrasound was performed to rule out organic causes of DUBfollowed by Diagnostic D&C. Endometrial biopsy was sent to pathology department for histo-pathological examination in 10% formaline. Data was collected and statistical analysis was done using SPSS version 21 software. The data was presented in frequency and percentage.Correlation was found between the age & endometrial findings and between type of clinical symptom presentation & endometrial findings.

RESULTS

A total of 100 patients out of 450satisfied our inclusion and exclusion criteria. The majority of cases (38%) belong to the age group of 31-40 years followed by 32% in the age group of 41-50 years and 17% in the age interval of 51-60 years. 9% and 4% of cases were in the age group of 21-30 years and 61-70 years respectively. (Fig. 1)25% patients of DUB presented with Menorrhagia, 10% each with Metrorrhagia, Menometrorrhagia and Polymenorrhea, 18% with Polymenorrhagia, 5% with Continuous bleeding and 2% with Oligomennorhea. (Fig. 2)DUB was more common in multiparous women (61%) followed by nulliparous (20%) and grand multiparous (19%). (Table: 1)

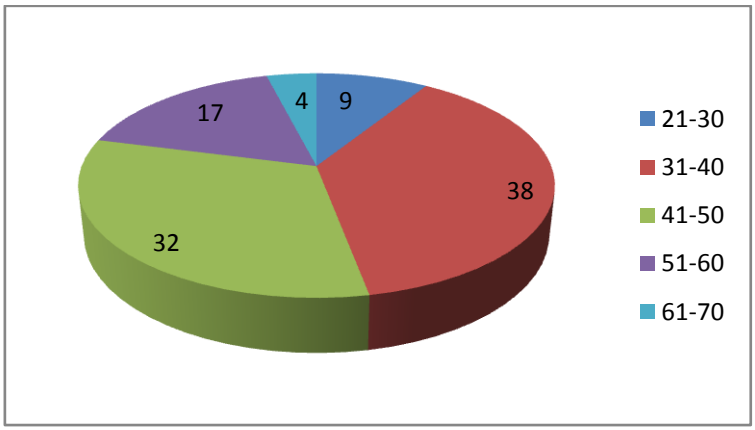

Fig.1 Percentage of DUB cases according to age interval (n=100)

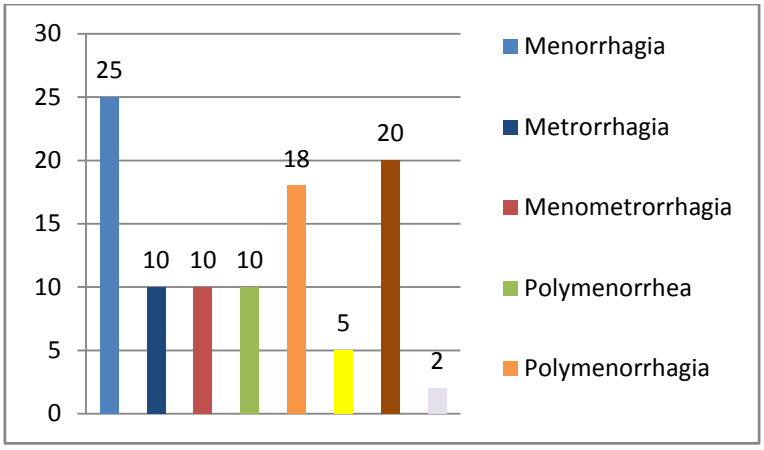

Fig.2 Menstrual pattern in patients of DUB in percentage (n=100)

Table 1: Correlation of parity with different age groups (n=100)

Age interval	Nulliparous	Multiparous	Grand Multiparous	Total
21-30	7(35%)	2 (3.3%)	0	9
31-40	6(30%)	24(39.3%)	8(42.1%)	38
41-50	1(5%)	21(34.4%)	10(52.6%)	32
51-60	4(20%)	12(19.7%)	1(5.3%)	17
61-70	2(10%)	2(3.3%)	0	4
Total	20	61	19	100

Table 2: Correlation of various menstrual irregularities in DUB with different age groups

	Age interval					
Menstrual pattern	21-30	31-40	41-50	51-60	61-70	Total
Menorrhagia	2(22.2%)	12(31.6%)	9(28.1%)	2(11.8%)	0	25
Metrorrhagia	0	7(18.4%)	3(9.4%)	0	0	10
Menometrorrhagia	2(22.2%)	5(13.2%)	3(9.4%)	0	0	10
Polymenorrhea	0	5(13.2%)	5(15.6%)	0	0	10
Polymenorrhagia	3(33.3%)	6(15.8%)	8(25%)	1(5.9%)	0	18
Continuous bleeding	2(22.2%)	2(5.3%)	1(3.1%)	0	0	5
Postmenopausal bleeding	0	0	2(6.3%)	14(82.4%)	4(100%)	20
Oligomennorhea	0	1(2.6%)	1(3.1%)	0	0	2
Total	9	38	32	17	4	100

Table 3: Correlation of various menstrual irregularities in DUB with weight of the patient

	Underweight	Normal	Overweight	Total
Menorrhagia	2(15.4%)	22(32.8%)	1(5%)	25
Metrorrhagia	3(23.1%)	5(7.5%)	2(10%)	10
Menometrorrhagia	2(15.4%)	7(10.4%)	1(5%)	10
Polymenorrhea	1(7.7%)	8(11.9%)	1(5%)	10
Polymenorrhagia	2(15.4%)	12(17.9%)	4(20%)	18
Continuous bleeding	2(15.4%)	1(1.5%)	2(10%)	5
Postmenopausal bleeding	1(7.7%)	10(14.9%)	9(45%)	20
Oligomennorhea	0	2(3%)	0	2
Total	13	67	20	100

Out of all the cases of DUB, 67% patients were of normal weight, 13% underweight and 20% were overweight.Out of 13 cases (13%) of underweight patient various menstrual irregularities reported were Menorrhagia, Menometrorrhagia, Polymenorrhagia and Continuous bleeding in 15.4% each, Metrorrhagia in 23.1%, Polymenorrhea and Postmenopausal bleeding in 7.7%.67% were of normal weight who reported Menorrhagia in 32.8%, Metrorrhagia in 7.5%, Menometrorrhagia in 10.4%, Polymenorrhea in 11.9%, Polymenorrhagia in 17.9%, Continuous bleeding in 1.5%, Postmenopausal bleeding in 14.9% and Oligomennorhea in 3%.20% were overweight out of which 5% each reported

with Menorrhagia, Menometrorrhagia and Polymenorrhea,10% each with Metrorrhagia and Continuous bleeding, 20% with Polymenorrhagia and 45% withPostmenopausal bleeding. (Table: 3)

Table 4: Correlation of various menstrual irregularities in DUB with Histopathological findings

	Proliferative	Secretory	Simple cystic hyperplasia	Cystic glandular hyperplasia with atypia	Adenomatous hyperplasia without atypia	Adenomatous hyperplasia with atypia	Endometritis	Endometrial polyp	Atrophic endometrium	Endometrial carcinoma	Total
Menorrhagia	9(36%)	8(28.6%)	4(22.2%)	1(50%)	0	0	0	3(37.5%)	0	0	25
Metrorrhagia	2(8%)	4(14.3%)	1(5.6%)	0	0	2(50%)	0	1(12.5%)	0	0	10
Menometrorrhagia	3(12%)	1(3.6%)	2(11.1%)	0	0	1(25%)	0	3(37.5%)	0	0	10
Polymenorrhea	1(4%)	7(25%)	1(5.6%)	0	0	0	1(33.3%)	0	0	0	10
Polymenorrhagia	5(20%)	6(21.4%)	4(22.2%)	0	1(33.3%)	0	2(66.7%)	0	0	0	18
Continous bleeding	4(16%)	1(3.6%)	0	0	0	0	0	0	0	0	5
Postmenopausal bleeding	1(4%)	0	6(33.3%)	1(50%)	2(66.7%)	1(25%)	0	1(12.5%)	5(83.3%)	3(100%)	20
Oligomenorhea	0	1(3.6%)	0	0	0	0	0	0	1(16.7%)	0	2
Total	25	28	18	2	3	4	3	8	6	3	100

Histopathological findings were proliferative in 25%, secretory in 28%, simple cystic hyperplasia in 18%, cystic glandular hyperplasia with atypia in 2%, adenomatous hyperplasia without atypia in 3%, adenomatous hyperplasia with atypia in 4%, endometritis in 3%, endometrial polyp in 8%, atrophic endometrium in 6% and endometrial carcinoma in 3%. Proliferative (9 cases) and secretory (8 cases)was the most common histopathological finding in patients who reported with menorrhagia. (Table: 4)

DISCUSSION

Dysfunctional uterine bleeding is one of the major gynaecological problem seen in women especially in the age group of 30-50 years. The present study examined 100 patients who presented with DUB during one year period at our centre. The majority of cases, 70% were in the age group of 31-50 years, similar findings were reported by Mohammad et al [7], Khare et al [8], Riaz et al [9], Malukani et al [10], Dadhani et al [11], Kayastha et al [12], Nanavati et al [13], Annigeri et al [14], Kariappa et al [15], Verma et al [16] while Nagarjuna et al [17] reported maximum number of cases (100) in the age group of 21-30 years.

In our present study 25% patients presented with Menorrrhagia, 10% each with Metrorrhagia, Menometrorrhagia and Polymenorrhea, 18% with Polymenorrhagia, 5% with Continuous bleeding and 2% with Oligomennorhea. Menorrhagia was the most common bleeding pattern in DUB which was in concordance with study conducted by Mohammad et al [7], Malukani et al [10], Dadhani et al [11], Nanavati et al [13], Annigeri et al [14], Kariappa et al [15], Verma et al [16] and Nagarjuna et al [17]. Oligomennorhea was the least common bleeding pattern reported in our study in contrast to metrorrhagia [10, 13], while Mohammad et al [7] observed polymenorrhea as the least common bleeding pattern.

Histopathological findings were proliferative in 25% and secretory in 28% cases in our study. Narula et al [18] also found secretory endometrium as the most common (35.92%) histopathological finding. In DUB any type of endometrium may be found, proliferative type was the most common reported by various studies [7-17]. We found endometrial hyperplasia in 27% of cases which was almost similar to Devi et al (33.3%), Kistner et al (30.8%), Mitra et al (34.6%) [19-21]. Among the hyperplastic type, Simple cystic hyperplasia was seen in 18% cases. Our study revealed no definite relationship between the type of bleeding pattern and endometrial histopatholigical findings and this was in concordance with other studies done by different authors.

DUB is one of the most common gynaecological disorder mostly in the age group of 30-50 years. Histopathological examination of endometrial biopsy is necessary to detect any abnormal changes and intervene early.

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