Research Paper

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Histopathological Study of Endometrium in Dysfunctional Uterine Bleeding

Medical Science

KEYWORDS : Dysfunctional uterine bleeding (DUB), Endometrium, Endometrial hyperplasia.

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ABSTRACT

BACKGROUND: Dysfunctional uterine bleeding is defined as excessively heavy, prolonged , or frequent bleeding of uterine origin that is not due to pregnancy or any recognizable pelvic or systemic cause. It is therefore a diagnosis of exclusion.1 Dysfunctional uterine bleeding is a common problem in the women in the age 30- 50 years. The incidence increases as age advances till menopause.2It is also seen in perimenarachal and perimenopausal age group.

AIMS AND OBJECTIVES:

1) To study endometrial cytomorphology in cases of DUB.

2) To study correlation of different clinical presentation and different clinical finding with histopathology.

3) To correlate age and party with histopathological finding.

4) To study incidence of various hyperplasia in women with DUB.

MATERIAL AND METHOD:

The study was done during periods of 2011- 2012, 410 cases were taken. In this study endometrium specimen were obtained by D& C and hysterectomy. Sections were stained by H&E stain and histopathological examination was done.

CONCLUSION :

Maximum numbers of DUB patients were in the age group 31-40 years. Most common presenting complaint was menorrhagia. Most of patients with DUB shows proliferative with hyperplastic pattern. Simple hyperplasia was more common than complex and atypical hyperplasia. As age advances incidence of hyperplasia was increased. Parity has no influence on endometrial pattern in DUB.

INRTODUCTION:

Dysfunctional uterine bleeding is defined as excessively heavy, prolonged , or frequent bleeding of uterine origin that is not due to pregnancy or any recognizable pelvic or systemic cause. It is therefore a diagnosis of exclusion.[1] Dysfunctional uterine bleeding is a common problem in the women in the age 30- 50 years. The incidence increases as age advances till menopause.[2]It is also seen at perimenarachal and perimenopausal age group.

The pathophysiology of DUB is not fully understood and it is complex[1]. The mechanisms for the abnormal bleeding and the site from which it arises are largely unknown. Menstruation is a very complex process involving oestrogen and progesterone and their receptors ,endometrial vasculature ,endometrial vasoactive substances, processes of tissue breakdown and remodelling and endometrial repair regeneration.[1] It accounts for above one third of all gynaecological consultations carried out for abnormal uterine bleeding.[3] Menstrual disturbance is one of the commonest gynaecological problems for which curettage or hysterectomy specimen is received by pathologist. Over the past 10-15 years there has been a major escalation as the scientific efforts aimed at elucidating the underlying mechanism. It is now clear that these mechanisms are complex and involving a number of different molecular systems[5]. Being most common gynaecological problems, present study aimed to know full spectrum of DUB and its pathological aspects at this institute.

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4) To study incidence of various hyperplasia in women with DUB.

MATERIAL AND METHOD:

The study was done during periods of 2011- 2012 in B.J Medical college ahmedabad. 410 cases were taken. In this study endometrium specimen were obtained by D& C and hysterectomy. Sections stained by H&E stain and histopathological examination was done.

RESULTS AND OBSERVATIONS

410 cases were studied in present series which were clinically diagnosed as DUB with exclusion of structural lesions by radiological investigations .Out of which 10 cases turned out to be some organic cause for the bleeding on histopathological examination .Those 10 cases (4 leiomyoma, 5 adenomyosis and 1 endometrial carcinoma) were excluded from present series and further study was carried out on 400 cases proven histopathologically also as DUB.

Table 1: Incidence of DUB in various age group in our study

AGE (YEARS)	NO OF CASES	PERCENTAGE(%)
≤ 20	2	0.5
21-30	64	16
31- 40	192	48
41-50	124	31
51- 60	18	4.5
TOTAL	400	100

Above table shows that largest no of patients were in 31-40 years(48%) with average age being 38.7 years. Next major group belonged to 41- 50 years (31%). The percentage of patients in age <30 years was 16.5%. Incidence of DUB was maximum in 31-4O years.

Table 2: Incidence of menstrual disorder in DUB

MENSTRUAL DISORDER	NUMBER OF CASES	PERCENTAGE (%)
Menorrhagia	206	76.5
Polymemenorrhoea	32	8
Menorrhagia	54	13.5
Oligomenorrhea	8	2
Total	400	100

Above table shows that maximum incidence was of menorrhagia(76.5%) followed by Metrorrhagia (13.5%)

TABLE 3: Endometrial pattern in DUB

ENDOMETRIAL PATTERN	NO OF CASES	PERCENTAGE(%)
Proliferative	159	39.75
Secretory	125	31.25
Hyperplasia	88	22
Atrophy	28	7
Total	400	100

Table 3 shows in present series proliferative phase was most common and found in 39.75% cases. Secretory phase was found in 31.25% and hyperplasia was seen in 22% cases.

Table 4: Incidence of types of hyperplasia associated with DUB

TYPES OF HYPERPLASIA	NO OF CASES	PERCENTAGE(%)
Simple	60	68.18
Complex	24	27.27
Atypical	4	4.55
Total	88	100

Above table shows that most common incidence of hyperplasia with DUB was simple hyperplasia followed by complex .Atypical hyperplasia was rare finding.

Table 5: Endometrial pattern in relation to Age:

ENDOMETRIAL PATTERN	AGE (YEARS)									
	≤20 YEARS		21-30 YEARS		31-40 YEARS		41-50 YEARS		51-60 YEARS	
	No	%	No	%	NO	%	NO	%	NO	%
Proliferative phase	2	100	32	50	80	41.66	44	35.48	1	0.5.55
Secretory phase	-	-	26	40.63	70	36.45	28	22.58	1	0.5.55
Simple hyperplasia	-	-	4	6.25	30	15.65	22	17.74	4	22.22
Complex hyperplasia	-	-	-	-	6	3.12	16	12.91	2	11.11
Atypical hyperplasia	-	-	-	-	2	1.04	-	-	2	11.11
Atrophic	-	-	2	3.12	4	2.08	14	11.29	8	44.44
Total	2	100	64	100	192	100	124	100	18	100

Above table shows proliferative phase was common in ≤ 30 years age group. Secretory phase was common in 21- 30 years age group. Hyperplasia was common in > 40 years age group. Atrophy was also common in > 40 years age group.

Table 6: Endometrial pattern in relation to parity

ENDOMETRIAL PATTERN	PARITY					
	≤2		3-4		≤5	
	NO	%	NO	%	NO	%
Proliferative phase	76	42.18	64	37.65	22	44
Secretory phase	68	37.74	50	20.41	10	20
Hyperplasia	28	15.64	46	27.06	14	28
Atrophic	8	04.44	10	05.88	4	08
Total	180	100	170	100	50	100

Table 7: Age incidence comparison with other series

AGE (YEARS)	OUR STUDY(%) 400 Cases	Muhammad et al.[3] 260 cases	Sutherland et al.[4] 848 cases
≤ 20	0.5	-	3.9
21-30	16	12.7	22.5
31-40	48	39.2	34.5
41-50	31	48.1	37.7
51-60	4.5	-	1.6

Above table shows that in our study maximum number of a patients were in 31-40 years age group (48%) and 4.5% patients belonged to > 50 years age group ,0.5% belonged to ≤ 20 years age which is comparable to other series. Low incidence was found in ≤ 20 years age group (0 .5%), however actual incidence of DUB is not low in this group. They are treated on conservative (hormonal) basis and most often they are unmarried and they do not undergo endometrial sampling.

Table no 8: Endometrial pattern comparison with other series.

Endometrial pattern	Our series		R.K.Narula et al study[15]		Sanaullah et al study [16]	
	NO	%	NO	%	NO	%
Proliferative phase	159	39.75	83	37.77	31	31
Secretory phase	125	31.25	79	35.95	43	43
Hyperplasia	88	22	46	20.90	11	11
Atrophic	28	7	12	5.46	-	-
Others	-	-	-	-	15	15
Total	400	100	220	100	100	100

Proliferative pattern is commonest in our series (39.75%) which is nearly comparable with R.K. Narula et al study. It is evident from above table that large proportions of patients showed proliferative or hyperplastic endometrial pattern. Incidence of hyperplasia is comparable in two studies.

Table 9: Incidence of types of Hyperplasia comparison with other series:

TYPES OF HYPERPLASIA	OUR STUDY		Muhammad et al study [3]		Sanaulla et al study[16]	
	NO	%	NO	%	NO	%
Simple	60	68.18	39	60.93	9	81.82
Complex	24	27.27	22	34.39	2	18.18
Atypical	4	4.55	3	4.68	-	--
Total	88	100	64	100	11	100

Above table shows that in our series maximum number of patients (68.18%) had simple hyperplasia of Endometrium which is comparable with other series. In our study atypical hyperplasia was less common (4.55%) which is also comparable with Muhammad et al study. Overall finding show that simple hyperplasia was more common than complex hyperplasia and incidence of atypical hyperplasia was very low.

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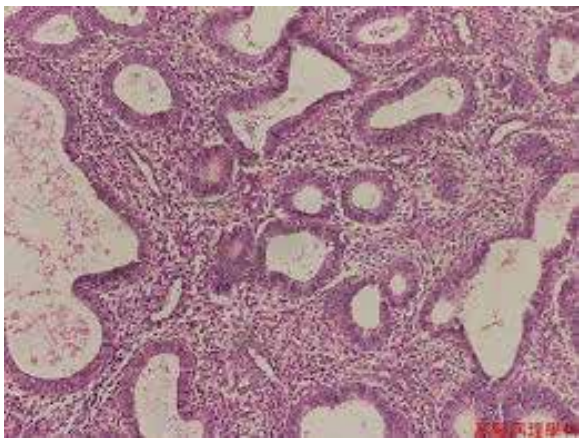
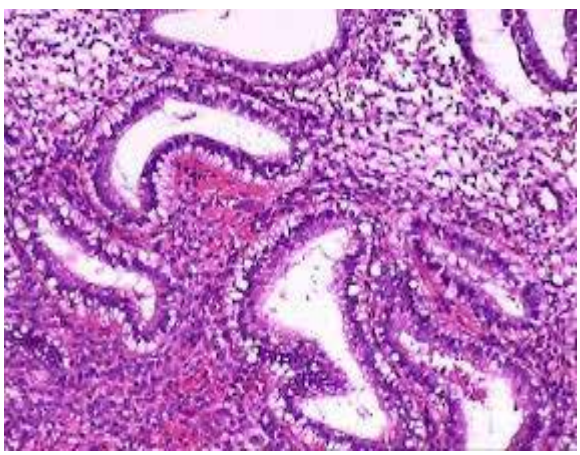
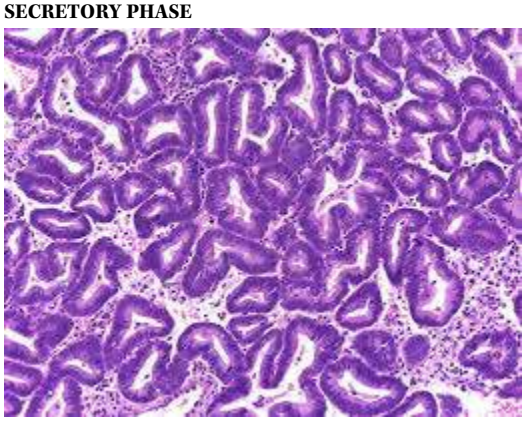


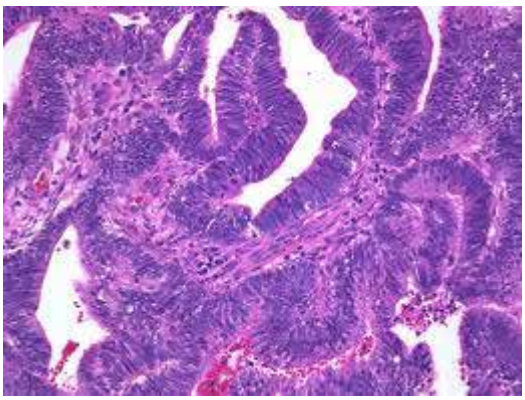
SIMPLE CYSTIC HYPERPLASIA



SECRETORY PHASE



COMPLEX HYPERPLASIA



ENDOMETRIAL ADENOCARCINOMA

CONCLUSION :

Maximum numbers of DUB patients were in age group 31-40 years. Most common presenting complaint was menorrhagia. Most of patients with DUB shows proliferative with hyperplastic pattern. Simple hyperplasia was more common than complex and atypical hyperplasia. As age advances incidence of hyperplasia was increased. Parity has no influence on endometrial pattern in DUB.

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