

ENDOMETRIAL CHANGES IN ABNORMAL UTERINE BLEEDING

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SUMMARY

A study of 104 cases of abnormal uterine bleeding was undertaken, of which 74 has D&C and 30 had hysterectomy. This constituted 25.1% of all the endometrial samples received. The majority belonged to 31-40 years age group. Metrorrhagia was the commonest bleeding pattern in 41.3% cases. Clinically, the largest group comprised of DUB (54.8%). Fibroid and DUB cases were clustered in 21-40 years age group. Histopathological examination showed endometrium to be proliferative (30.8%) secretory (25.8%), hyperplastic (20.2%), irregular shedding (7.7%) malignancy (5.8%) and tuberculosis (3.8%). Adenomyosis uteri and leiomyoma were seen in 46.7% and 40% of the 30 hysterectomy specimens.

The microscopical examination of endometrium bears the pivotal role in diagnosing the various oetiopathological factors in cases of abnormal uterine bleeding.

INTRODUCTION

Excessive and irregular uterine bleeding continues to be one of the most frequently encountered and perplexing problems in gynaecology. Abnormal uterine bleeding

(AUB) is defined as - any bleeding that is excessive in duration, frequency or amount for a particular patient (Wentz, 1988). When no systemic or local pelvic cause is evident to the clinician, histopathological examination of the endometrium remains the only alternative to reach the diagnosis.

In this study, we have attempted to find

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out the incidence of various oetio-pathological factors in cases of (AUB) and to correlate clinical presentations with the histopathological diagnosis. The distribution of histopathological findings in various age groups was also analysed.

MATERIAL AND METHODS

The present study was conducted on 104 patients complaining of AUB. In 74 cases, the endometrium was collected by D & C and in 30 cases from hysterectomy specimens. Detailed clinical history and relevant investigations were recorded.

The Haematoxylin and Eosin staining was done in all the endometrial tissues and the following parameters were studied: glandular changes, stromal changes, spiral arterioles, periarteriolar predecidualization, predecidualization upto sub surface zona compacta, haemorrhage, leucocytic infiltration, chronic endometritis, granuloma formation (Tuberculosis), lymphoid follicles and lipophages.

OBSERVATIONS AND DISCUSSION

The overall incidence of cases presenting with AUB among all the cases of

Table I
COMPARATIVE ANALYSIS OF CLINICAL PRESENTATIONS AS REPORTED BY DIFFERENT AUTHORS

Authors	Rosario V.1 (1969)	Nayak S.R.2 et al. (1976)	Sagar S.3 (1980)	Solapurkar4 M.L. (1986)	Present study5 (1992)
No. of cases studied	137	224	488	1084	104
	(%)	(%)	(%)	(%)	(%)
Clinical presentations					
Menorrhagia	26.3	49.1	40.9	25.9	41.3
Polymenorrhoea	-	12.9	9.8	10.2	13.5
Polymenorrhagia	-	14.2	16.8	-	12.5
Metrorrhagia	12.4	7.1	-	5.5	15.4
Continuous bleeding	50.4	-	5.1	-	7.7
Postmenopausal bleeding	-	12.9	10.1	8.0	9.6
Miscellaneous	10.9	3.8	17.3	51.4	-

1. Premenopausal age group
2. Above 40 years
3. Above 45 years
4. All age groups
5. All age groups.

Table II
CORRELATION OF CLINICAL PRESENTATION WITH
HISTOPATHOLOGICAL DIAGNOSIS OF THE CASES

Symptoms	No. of cases	Prolif. (%)	Secret. (%)	Atrophic (%)	Hyperpl. (%)	Irregular shed. (%)	Endo polyp. (%)	Malignant lesion (%)	TB endo. (%)	Syncytial endo/Deci. Rx/ASRx(%)
Menorrhagia	43	15 (34.9)	13 (30.2)	-	09 (20.9)	03 (6.9)	02 (4.7)	-	-	01 (2.4)
Metrorrhagia	16	02 (12.5)	05 (31.3)	-	02 (12.5)	-	-	02 (12.5)	04 (25.0)	01 (6.2)
Polymenorrhoea	14	07 (50.0)	03 (21.4)	-	02 (14.3)	01 (7.1)	01 (7.1)	-	-	-
Polymenorrhagia	13	04 (30.8)	04 (30.8)	-	03 (23.1)	02 (15.3)	-	-	-	-
Continuous	08	01 (12.5)	01 (12.5)	-	03 (37.5)	02 (25.0)	-	-	-	01 (12.5)
Postmenopausal	10	03 (30.0)	-	01 (10.0)	02 (20.0)	-	-	04 (40.0)	-	-
Total	104	32	26	01	21	08	03	06	04	03

endometrial tissues received at the histopathology section was 25.1%. Mukherji & Roy Chowdhury (1986) and Rosario (1969) have noted 18.4% of puberty bleeding and 24.7% of DUB among all hysterectomies respectively.

Most of the cases (46.2%) belonged to the 4th decade (31-40 years) as compared to 56.27% being under 35 years in the study by Solapurkar (1986). For 5th, 3rd and 6th decades the frequency was 25.9%, 16.3% and 8.8% respectively.

Menorrhagia was reported in maximum number of patients (41.3%) similar to Nayak et al (1976) who found it in 49.1% cases followed by metrorrhagia (15.4%), polymenorrhoea (13.5%), polymenorrhagia (12.5%), postmenopausal bleeding (9.6%) and continuous bleeding (7.7%) (Table I).

Cases presenting with menorrhagia (Table II) revealed proliferative endometrium in maximum number of cases (34.9%). Secretory and hyperplastic endometrium were found in 30.2% and 20.9% of all the cases with menorrhagia. Cases with post-menopausal bleeding showed malignant lesion of the uterus in 40% of cases. Adenomyosis and leiomyoma were identified microscopically in 46.7% and 40% cases of hysterectomy specimens.

Histopathological examination of the endometrium (Table III) revealed proliferative endometrium in 30.8% and secretory endometrium in 25.8% cases which is in conformity with Mukherji & Roy Chowdhury (1986) and Rosario (1969), who found proliferative endometrium in 33.3% and 35% respectively. Hyperplastic endometrium was seen in 20.2% of all the cases. According to the criteria described by the 'International Society of

Gynaecological Pathologists', the hyperplastic endometrium was further subdivided into simple (71.4%), complex (19.9%) and atypical (9.6%).

Hyperplastic endometrium was seen in 20.2% cases similar to the findings of Sarin et al (1985) viz 20.1%. Simple (cystic) hyperplasia was found in 71.4% cases of hyperplasia similar to the incidence of 80% by Sagar (1980). Simple hyperplasia with cystic dilatation has been termed as "disordered proliferative endometrium" by Hendrickson and Kempson (1987). Included among these we also found a case of "hyperplasia with superimposed secretory change" probably as a result of an anovulatory cycle followed by ovulatory cycle.

Cases of hyperplasia with mild and moderate atypia can be treated by curettage or removal of oestrogen source. Whereas severe atypia cases in peri or post menopausal group could be treated with hysterectomy because the incidence of carcinoma increases according to the degree of atypia and to the length of time the hyperplastic endometrium is left in vivo (Scully, 1981). Endometrial carcinoma was found in 2.9% cases compared to the varied incidence noted by various authors like Solapurkar (1986) who reported in 0.6%, Sarin et al. (1985) 8.4% and Lidor (1986) 0.9%.

Adenocarcinoma should always be graded as the prognosis and therapy depends upon the degree of differentiation (Eifel et al 1982). The cytological abnormalities are prognostically more important than architectural patterns, despite the FIGO grading scheme which uses architectural features exclusively (Hendrickson and Kempson 1987).

Table III
HISTOPATHOLOGIC STATUS OF ENDOMETRIUM

	No. of cases	Percentage
1. Proliferative	32	30.8
2. Secretory	26	25.8
3. Hyperplastic and metaplastic		
- Simple	15	14.5
- Complex	04	3.8
- Atypical	02	1.9
4. Malignant lesions		
- Endometrial carcinoma	03	2.9
- Endometrial sarcoma	01	0.9
- Infiltration sq. cell ca.	01	0.9
- Choriocarcinoma	01	0.9
5. Other lesions		
- Irregular shedding	08	7.7
- TB endometritis	04	3.8
- Endometrial polyp	03	2.9
- Decidual reaction	01	0.9
- Syncytial endometritis	01	0.9
- Arias - Stella reaction	01	0.9
- Atrophic endometrium	01	0.9
Total	104	100

Tubercular endometritis, an important entity in a country like ours was found to be 3.8% in our study although AUB is not the common mode of presentation of the disease as also found by Solapurkar (1986) in 1.2%, Tyagi et al (1977) in 1.08%. Frequency of endometrial polyp as reported

by Jovicevic (1989) 2.6% is quite close to ours i.e. 2.9%.

The less common findings in our study as well as others were syncytial endometritis 1%, atrophic endometrium 0.9%. Irregular shedding was noted in 7.7% cases where heavy bleeding at the time of menses lasted

or more than a week, the cause being explained on the basis of prolonged activity of corpus luteum (McLennan, 1952). Rosario (1969) has reported its incidence to be 2.2% and Mukherji (1986) as 6.7%.

Hence it is recommended that the histological examination of the endometrium is a must in cases of abnormal uterine bleeding, so as to exclude the cases of hyperplasia, particularly atypical hyperplasia and carcinomatous focus in a hyperplastic endometrium, who may need hysterectomy and further treatment.

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