



ENDOMETRIAL HISTOPATHOLOGICAL CHANGES IN CASES OF DYSFUNCTIONAL UTERINE BLEEDING AT A TERTIARY CARE CENTRE IN EASTERN U.P.

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ABSTRACT **Background**-DUB(Dysfunctional uterine bleeding)refers to an abnormal bleeding from the uterus,which is not caused due to tumors,inflammation,pregnancy or other organic causes.The histopathological diagnosis of DUB is very essential,especially in perimenopausal and postmenopausal females.
Objective-The aim of this study was to evaluate DUB in various age groups,to study the histopathological patterns and their association with age and parity.
Methods-This study was conducted at Heritage institute of medical sciences,varanasi in the department of Pathology,from january 2017 to december 2017 and 50 cases were included based on clinical features and detailed investigations.Endometrial tissue samples received either as D&C or hysterectomy specimens were included in our study and analysed for Histopathological evaluation by pathologists.
Results -DUB was found to be more among women of reproductive age groups followed by perimenopausal and menopausal age.Menorrhagia was the most common type of bleeding pattern.The most common histopathological pattern was proliferative endometrium among multiparous women(2-4 children) and simple hyperplasia without atypia among the grand multiparous females.
Conclusion -The cases of DUB is strongly related to patient's age,type of menstrual cycles,menopausal status and parity.It is important to know the histopathological pattern of endometrium in patients diagnosed with atypical uterine bleeding in different age groups since the recognition of these conditions help in early and clear diagnosis and in avoiding further complications.

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

Introduction

Endometrium is a hormonally responsive tissue that undergoes rhythmic changes during the reproductive life.AUB(Atypical uterine bleeding)is defined as the pattern of bleeding that is different in duration,amount and frequency from the normal pattern of menstrual cycle.AUB which is not associated with organic cause is called as DUB(Dysfunctional uterine bleeding).¹It is one of the most common complaints for which women visit the gynaecologists.9-30% of women in reproductive age suffer from menorrhagia.This increases with age and parity².Evaluation is needed in such patients to confirm the benign nature of the problem and to rule out endometrial carcinoma so that prompt treatment can be provided.³

Materials and methods

This was a retrospective study of one year duration conducted in the department of Pathology at a medical college and tertiary care hospital in eastern Uttar Pradesh.50 cases were included in the study based on the detailed clinical findings and investigations.The specimens were received as endometrial curettage and hysterectomies.All specimens were fixed in 10% formalin for 12-24 hours,tissues were processed and embedded in paraffin,3-4 micron thick sections were prepared and stained by haematoxylin and eosin stain.Microscopic examination was done by two pathologists to reduce observer bias.The data was collected and analysed in the form of percentage and was represented as tables and figures where necessary.Patients presenting with organic pathologies like polyps,leiomyoma etc were excluded.

Results-

This study was carried out in the department of pathology and 50 cases of DUB were studied.

Table 1-DUB according to age groups-

Age groups	No.of cases	Percentage
19-29 years	05	10
30-49 years	32	64
50-69 years	13	26

Cases of dysfunctional uterine bleeding were found to be more during the mid reproductive age group with maximum cases in 30-49 years

Table 2-Variou bleeding patterns in DUB-

Bleeding patterns	Number of cases	Percentage
Menorrhagia	27	54
Metrorrrhagia	09	18
Polymenorrhoea	06	12
Menometrorrhagia	03	06
Hypomenorrhoea	03	06
Polymenorrhoea	02	04

The most common type of pattern of bleeding was found to be menorrhagia followed by metrorrrhagia.

Table 3-Histopathological pattern of endometrium in DUB

Histopathological pattern	Number of cases	Percentage
Secretory phase	08	16
Proliferative phase	18	36
Simple hyperplasia without atypia	17	34
Complex hyperplasia without atypia	04	08
Endometritis	02	04
Atrophic endometrium	01	02

The most common histopathological pattern was proliferative phase found in 36% of cases which was closely followed by simple hyperplasia without atypia in 34% of cases.

Table 4-Relationship of DUB with parity

Parity	Number of patients	Percentage
Nullipara (no children)	Nil	-
Primipara (children 1-2)	05	10
Multipara (Children 2-4)	25	50
Grand multipara(children>5)	20	40

Most of the cases were present in multiparous women and no cases were observed in nulliparous women suggesting increase in incidence of DUB with parity.

Table 5-Endometrial pattern of DUB in relation to parity-

Parity	Secretory phase	Proliferative phase	Simple hyperplasia without atypia	Complex hyperplasia without atypia	Endometritis	Atrophic endometrium
1-2	Nil	02	02	Nil	Nil	Nil
2-4	06	15	03	04	02	Nil
>5	02	01	12	04	Nil	02

The most common pattern in the endometrium in multiparous women was proliferative phase while the most common pattern in the grand multiparous women was simple hyperplasia without atypia.

Discussion-

Most of the cases in the present study were in 30-49 year age group i.e the mid reproductive age. This is similar to the studies by Priyanka et al¹, Malukani et al², Patil R.etal⁶ and Nanavati et al⁷. Maximum number of patients visiting the gynaecologists diagnosed as DUB had Menorrhagia as the most common bleeding problem followed by other less common presentations like metrorrhagia, polymenorrhoea, menometrorrhagia etc. This was comparable to the bleeding patterns seen in other studies like Priyanka et al¹, Chary R et al⁸, Mohammad et al⁹ and Malukani et al², whereas L.Sushila devi et al¹⁰ and Kayastha et al¹¹ showed metrorrhagia as commonest clinical presentation. Proliferative phase endometrium became the most common histopathological pattern of endometrium in DUB which was comparable to the findings of Priyanka et al¹, Khare et al¹², Annigeri et al¹³, Nanavati et al⁷, Malukani et al² and L.Sushila devi et al¹⁰. This study also compared the role of parity with various histopathological patterns of DUB in areas of eastern U.P. and it was observed that proliferative phase was most common in multiparous women while among the grand multiparous women, simple hyperplasia without atypia was most commonly observed. These are similar to the studies by Priyanaka et al¹. While comparing the DUB cases in relation to parity, maximum cases were in multiparous women similar to the studies by Priyanaka et al¹, Patil R.etal⁶ and Khan R et al¹⁴. The limitations of this study are its small sample size which if larger would give a broader picture of problem in the community.

Conclusion-

The cause of DUB is strongly related to the age of patients, type of menstrual cycle and status of menopause. Evaluation of women with DUB is necessary, especially around the perimenopausal age group to detect any abnormal changes and intervene early. Histopathological examination still remains the standard procedure for diagnosis in Dysfunctional uterine bleeding.

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