Original Research Article

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Bleeding Patterns in Dysfunctional Uterine Bleeding and Corelation with Histopathology of the Endometrium

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Abstract

Introduction: Dysfunctional uterine bleeding is one of the commonest conditions met within gynaecological service of any hospital. DUB can be caused by variety of disorders. At one end it may represent an exaggerated normalphysiological process and observations alone may be warranted and to other endbleeding can be a serious underlying condition. DUB has great variations inendometrial patterns.

Material & Methods: A Prospective study was conducted from April 2010 to September 2011 involving 100 patients between 14-55 years with symptoms of dysfunctionaluterine bleeding presenting to Navodaya medical college hospital, Raichur, their endometrial samples were obtained by dilatation and curettage. *Results:* The maximum incidences of DUB were in 21- 40 years age group (67%).Thepredominant bleeding pattern was menorrhagia (44%) and least common wascontinuous bleeding (14%). Most common endometrial profile wasproliferative (35%) and least common was irregular shedding (15%). *Conclusion:* DUB is more commonly seen during reproductive age group. Majority (46%) of them presented with menorrhagia.

Keywords: Dysfunctional Uterine Bleeding; Menorrhagia; Proliferative Endometrium.

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Introduction

Dysfunctional uterine bleeding is one of the commonest conditions met with in then gynaecological service of any hospital. Virtually every woman will atsome point in her life time experience episodes of bleeding that will be perceivedas abnormal. Dysfunctional uterine bleeding can be caused by a variety ofdisorders. At one end it may represent an exaggerated normal physiologicalprocess and observation alone may be warranted and to other end bleeding can besign of serious underlying condition.

DUB has been defined as abnormal uterine bleeding without any clinically detectable organic, pelvic pathology (Kistner) [1]. Novak describes dysfunctional uterine bleeding as a bleeding of uterineorigin in the absence of pregnancy, tumour or inflammation [2].

Dysfunctional uterine bleeding is one of the most common conditions for which patients seek advice in gynaecological out patient department accountingfor 10%-15% [3]. Dawn (1984) found 15 % to 20% of all gynaecological admission are thought to be for DUB [4].

It is estimated that 30% of reproductiveage group women suffer from menorrhagia, about 20% are in adolescent agegroup and 50% belong to perimenopausal age group [5].

Dysfunctional uterine bleeding denotes an abnormality in the normalcyclic menstrual flow, whether in amount, duration or interval, which is caused bydisturbances of endocrine mechanism that control normal menstruation andwithout structural pathology.

Dysfunctional uterine bleeding can be ovulatory or anovulatory and varieswith age groups.

An erroneous diagnosis of dysfunctional uterine bleeding may lead toimproper and failed treatment and because of consequences of bleeding likeanaemia and its associated complications, correct diagnosis must be reachedbefore any therapy is administered.

Dysfunctional uterine bleeding is a benign yet debilitating condition, Livesmore often than not have to revolve around menstrual calendar, with social andwork commitments being cancelled during menses. Till last decade only solution offered for these patients was hysterectomy.

Hysterectomy being major operation associated with significant surgicaland psychological complication, which made unacceptable to women today astreatment modality. Hence conservative methods are gaining importance.Dysfunctional uterine bleeding has great variations in endometrialpatterns whose management depends on type of endometrium.

The need for dilatation and curettage in dysfunctional uterine bleeding allows more extensive sampling of uterine cavity and hasadvantage of being both diagnostic and therapeutic. It may be treatment of choice when bleeding is severe or necessitates bloodtransfusion and also helps to co-relate bleeding patterns with histopathology ofendometrium, in which management defers.To evaluate them this study is undertaken.

Objectives

1. To study the age group, bleeding patterns and endometrial profile in dysfunctional uterine bleeding
2. Tocorrelate the bleeding pattern with the histopathology of endometrium

Materials and Methods

Source of Data

This was a prospective study in which all female patients between the age of 14-55 years withsymptoms of abnormal uterine bleeding presenting to Navodaya medical college hospital, Raichurfrom April 2010 to September 2011 were taken for the study. Samples of the endometrial tissue were obtainedby Dilatation and Curettage.

Inclusion Criteria

1. Patients complaining of abnormal vaginal bleeding without any clinicalpalpable pelvic Pathology.
2. Age between 14-55 yrs, Married, Nulliparous/ multiparous

Exclusion Criteria

1. Patients with organic lesions like endometrial polyp, leiomyomas and incomplete abortion.
2. Patients with local cervical lesions

Procedure

A total of 100 patients were included in our study, reported to Obstetrics and Gynaecological department with history of abnormal uterinebleeding. A thorough clinical examination which included general, systemic and gynaecological examination was undertaken for each case. All the patients were subjected to routine investigations like complete blood count, peripheral blood smear, coagulation profile, thyroid profile etc. Ultra sound of theabdomen was done in all cases. All these patients underwent dilatation and curettage performed in minor OT.

Statistical Analysis

Descriptive statistics was used such as mean, standard deviation and proportion. Chi-squaretest was used for categorical variables. A two tailed P-value less than 0.05 considered as significant and 0.01 as highly significant. Data analysis was doneusing SPSS V 16.0 software.

Results

Table 1 show the age wise distribution of cases. It shows that frequency of dysfunctional uterine bleeding was common in 31-40 (64%) yrs age group. Mean age (Standard deviation) is 39.55(3.58). The youngest patient in this series was 27 years and oldest was 47years.

Table 2 show the presenting bleeding patterns of all the 100 patients in the study aretabulated in table 2.Most common pattern seen in the patients included in the studywas menorrhagia (46%) followed by polymenorrhagia (24%) and leastcommon pattern was continuous bleeding (14%).

Table 3 show the histopathological study of the endometrium of all the 100 patients inthe study is tabulated in table 3. Most common profile seen in the patients includedin the study was proliferative (35%), followed by secretory (30%) and leastcommon was irregular shedding (15%).

Table 1: Distribution of patients according to age group

Age group (yrs)	Frequency	Percentage
21-30yrs	3	3(3%)
31-40yrs	64	64(64%)
41-50yrs	33	33(33%)
Total	100	100

Table 2: Distribution of various bleeding patterns in cases presenting with DUB

Type of bleeding	Frequency	Percentage
Menorrhagia	46	46%
Polymenorrhagia	24	24%
Polymenorrhea	16	16%
Continuous bleeding	14	14%
Total	100	100

Table 3: Distribution of various endometrial profiles in DUB cases

Endometrial profile	Number of cases	Percentage
Proliferative	35	35%
Secretory	30	30%
Simple hyperplasia without atypia	20	20%
Irregular shedding	15	15%
Total	100	100

Table 4: Distribution of various bleeding patterns in relation tohistopathological spectrum of lesions of the endometrium

Type of bleeding	Proliferative	Secretory	Irregular shedding	Simple hyperplasia without atypia	Total
Menorrhagia	16	16	5	9	46
Polymenorrhagia	10	6	4	4	24
Polymenorrhea	6	6	4	0	16
Continuous bleeding	3	2	2	7	14
TOTAL	35	30	15	20	100

$\chi 2 = 2.070$, DF=4, p=0.723

Table 4 shows 46 patients presented with menorrhagia of which 16 caseshad proliferative phase, 16 cases had secretory phase, 9 cases had cystic glandularhyperplasia and 5 cases had irregular shedding. 24 patients presented with polymenorrhagia of which, 10 cases had proliferative phase, 6 cases had secretoryphase, 4 cases had Cystic glandular hyperplasia and 4 cases had irregular shedding.

16 patients presented with Polymenorrhoea of which 6 cases had proliferativephase, 6 cases had secretory phase, no cases had Cystic glandular hyperplasia and4 cases had irregular shedding. Remaining 14 patients presented with continuousbleeding of which 3 cases had proliferative phase, 2 cases had secretory phase, 7 cases had Cystic glandular hyperplasia and 2 cases had irregular shedding.

In the presentstudy with the study subjects presenting with DUB, there was no association between the various bleeding patterns and histopathology of endometrium (p>0.05).

Discussion

The age incidence in the present study corresponds with the findings of Sutherland [6], Das A [7] which shows that DUB is common during reproductive life (21-40 years). Thus the findings of this study showing preponderance of DUB during reproductive life (21-40 years) are consistent with other studies.

In the present study, incidence of various bleeding patterns according to decreasing order of frequency was menorrhagia (46%), Polymenorrhagia (24%), Polymenorrhoea (16%) and Continuous bleeding (14%). Menorrhagia which was the predominant bleeding pattern in thisstudy was consistent with the findings in the similar studies conducted bySolapurkar [8] et al (40.9%), Nayak [9] et al (49.1%), Maheshwari V [10] et al(41.3%) and Sagar S [11] et al (40.9%). Polymenorrhagia in our study was the second most common bleeding pattern (24%) and was slightly higher in incidence when compared to otherstudies of Nayak [9] et al(14.2%), Maheshwari V [10] et al (12.5%)and Sagar S [11] (16.8%).

Polymenorrhoea was next common finding in our study (16%) with slightlylower in incidence when compared to other studies of Solapurkar [8] (10.2%), Nayak [9] et al (12.9%) Maheshwari V [10] et al (13.5%) and Sagar S [11] et al (9.8%). Continuous bleeding patterns were comparatively lesscommon (14%), the findings of which were consistent with the findings of studiesconducted byMaheshwari V [10] et al (7.7%) and Sagar S [11] (5.1%) .

In the present study, the incidence of various endometrial lesions in descending order of frequency were proliferative (35%), secretory (30%), simplehyperplasia without atypia (CGH) (20%) and irregular shedding (15%).Proliferative endometrial pattern (35%) which is the predominantendometrial profile in this study had a low incidence in the studyconducted byMaheshwari V [10] et al who reported (30.8%). The incidence of simple hyperplasia without atypia (CGH) was 20% whereas the incidence was 14.5% conducted by Maheshwari V [10] et al.

Menorrhagia was the most common bleeding pattern in this study, found in Proliferative 34.7% and Secretory 34.7% endometrial profiles, which corroboratedwith the findings in a similar study conducted by Maheshwari V [10] et al. In this study, Polymenorrhagia presented in cases with proliferative (41.6%) and secretory (25%), simple hyperplasia without atypia (16.7%) which was in similar findings conducted by Maheshwari V [10] et al in which proliferative and secretory patterns (30.8%) was most common followed bysimple hyperplasia without atypia (23.1%) and irregular shedding (15.3%).

The Proliferative pattern and secretory pattern (37.5%) were the dominant endometrial profile in cases presenting with polymenorrhoea which was consistent with the study done by Maheshwari V [10] et al who reported that proliferative (50%) were more common. Simple hyperplasia without atypia (CGH) (50%) was the dominantendometrial profile in cases presenting with continuous bleeding whichcorrelates to the study done by Maheshwari V [10] et al which reported (37.5%).

Conclusion

Dysfunctional uterine bleeding is a common disorder in gynaecologicalpractice, predominantly seen in the age group 31-40 yrs. Majority of them had menorrhagia (46%). Patients with bleeding or coagulation disorders and endocrinopathies were not seen. No specific relationship exists between bleeding pattern and histopathological profile. Considering all the above observation, DUB is caused due to the influence of proliferative harmones on the endometrium in perimenopausal women and it is recommended that histological examination of the endometrium is must in cases of abnormal uterine bleeding.

References

1. Purandare CN. Dysfunctional uterine bleeding-An update. JayPee Medical Publishers, 2006.p. 16,125,203.
2. Novak's text book of gynaecology,14th edition, benign diseases of femalereproductive tract; abnormal bleeding. p.446-454.
3. Daftary SN, Patki A. Reproductive endocrinology and infertility principles and clinical practice, 1st edition BI publications;NewDelhi, 2000;68-79.
4. Chabra S, Jaswal M, Nangia V and Nayar V. Uterine size, endometrium and fertility in women with dysfunctional uterine haemorrhage. Journal of Obstetrics and Gynaecology. 1992; 42:692-694.
5. Ratnam, K. Bhaskerrao and S. Arulkumaran. Management of Dysfunctional uterine bleeding. 2nd edition, 2000;1: 258-269.
6. Sutherland AM.Recent advances in obstetrics and gynaecolgy.1962;365-381.
7. Anusuya D,Chugh S. Dysfunctional uterine bleeding-Aclinicopathological study. Journal of Obstetrics and Gynaecology, India.1 964;14(2) 343-7.
8. Solapurkar MU. Endometrial spectra in women at different ages.Journal of Obstetrics and Gynaecology. 1986; 36(1):139.
9. Nayak SR,Vaiya RR and Thakur S.S. Journal of Obstetrics and Gynaecology, India. 1976;26:585
10. Maheshwari V, Chakraborty A, Tyagi S, Sharma R, Alam K. and Mohsin S. Endometrial changes in abnormal uterine bleeding. Journal of Obstetrics and Gynaecology, India. 1996; 33(4):389-394.
11. Sagar S. Histopathological cases of uterus. Journal of Obstetrics and Gynaecology. 1980;30:165.