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Clinico-Pathological correlation of abnormal uterine bleeding

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Abstract
Dysfunctional uterine bleeding (DUB) is abnormal genital tract bleeding based in the uterus and found in the absence of demonstrable structural or organic disease. There are many conditions clinical condition and diagnosis does not correlates with histopathological condition. The study is planned to evaluate the pathological conditions in endometrium of the patients having abnormal uterine bleeding and its correlation with clinical condition.
The study was planned in 30 female's patients in katihar medical college and hospital in the year July 2006 to July2007. The patients referred to Out Patients Department (OPD) in Obstetrics and Gynaecology department are enrolled into study. All patients were informed consents. The aim and the objective of the study were conveyed to patients.
The histopathological study of endometrium in females with abnormal uterine bleeding above the age of 40 years plays an important role in diagnosing various histological patterns and aetiopathological factors. Hence histopathological examination is mandatory, in cases of peri-menopausal and postmenopausal abnormal uterine bleeding.

Keywords: abnormal uterine bleeding, pathological study, dysfunctional uterine bleeding, etc.

Introduction

Dysfunctional uterine bleeding (DUB) is abnormal genital tract bleeding based in the uterus and found in the absence of demonstrable structural [1] or organic disease. It is usually due to hormonal disturbances: reduced levels of progesterone cause low levels of prostaglandin F2alpha and cause menorrhagia (abnormally heavy flow); increased levels of tissue plasminogen activator (TPA) (a fibrinolytic enzyme) lead to more fibrinolysis.

Diagnosis must be made by exclusion, since organic pathology must first be ruled out.

DUB can be classified as ovulatory or an ovulatory, depending on whether ovulation is occurring or not. It is usually a menstrual disorder, although abnormal bleeding from the uterus is possible outside menstruation.

Some sources state that the term "dysfunctional" implies a hormonal mechanism [2]. Use of the term "abnormal uterine bleeding" is preferred in today's medicine.

10% of cases occur in women who are ovulating, but progesterone secretion is prolonged because estrogen levels are low. This causes irregular shedding of the uterine lining and break-through bleeding. Some evidence has associated Ovulatory DUB with more fragile blood vessels in the uterus.

It may represent a possible endocrine dysfunction, resulting in menorrhagia or metrorrhagia. Mid-cycle bleeding may indicate a transient estrogen decline, while late-cycle bleeding may indicate progesterone deficiency.

About 90% of DUB events occur when ovulation is not occurring (Anovulatory DUB). Anovulatory menstrual cycles are common at the extremes of reproductive age, such as early puberty and perimenopause (period around menopause). In such cases, women do not properly develop and release a mature egg. When this happens, the corpus luteum, which is a mound of tissue that produces progesterone, does not form. As a result, estrogen is produced continuously, causing an overgrowth of the uterus lining. The period is delayed in such cases, and when it occurs menstruation can be very heavy and prolonged. Sometimes anovulatory DUB is due to a delay in the full maturation of the reproductive system in teenagers. Usually, however, the mechanisms are unknown.

The cause can be psychological stress, weight (obesity, anorexia, or a rapid change), exercise, endocrinopathy, neoplasm, drugs, or it may be otherwise unknown.

Assessment of anovulatory DUB should always start with a good medical history and physical examination. Laboratory assessment of hemoglobin, luteinizing hormone (LH), follicle stimulating hormone (FSH), prolactin, T4, thyroid stimulating hormone (TSH), pregnancy (by βhCG), and androgen profile should also happen. More extensive testing might include an ultrasound and endometrial sampling.

Drug of choice is progesterone. Management of dysfunctional uterine bleeding predominantly consists of reassurance, though mid-cycle estrogen and late-cycle progestin can be used for mid- and late-cycle bleeding respectively.

Also, non-specific hormonal therapy such as combined high-dose estrogen and high-dose progestin can be given. Ormeloxifene is a non-hormonal medication that treats DUB but is only legally available in India. The goal of therapy should be to arrest bleeding, replace lost iron to avoid anemia, and prevent future bleeding. Excessive movement before any treatments or surgeries will cause excessive bleeding. A hysterectomy may be performed in some cases [3].

There are many conditions clinical condition and diagnosis does not correlates with histopathological condition. The study is planned to evaluate the pathological conditions in endometrium of the patients having abnormal uterine bleeding and its correlation with clinical condition.

Methodology

The study was planned in 30 female's patients in katihar medical college and hospital in the year July 2006to July 2007. The patients referred to Out Patients Department (OPD)

in Obstetrics and Gynaecology department are enrolled into study. All patients were informed consents. The aim and the objective of the study were conveyed to patients.

The 30 women's having age from 20-60 history of abnormal uterine bleeding was studied. Endometrial tissue collected by sampling procedure such as Dilatation and Curettage (D&C), endometrial biopsies had been sent to the pathology lab for evaluation.

Detailed clinical history like age, menstrual status including pattern, period & regularity of cycle were obtained relevant findings of general, systemic examination were recorded.

Result & Discussion

The Endometrial pathology basis of the abnormal uterine bleeding is studied in 30 patients. The evaluation had been reported following data.

Table 1: Age group & Parity

Age (years)	No. of women's
Null Parity	1
Parity 1	2
Parity 2	6
Parity 3	9
Grand multipara	12
Total	30

Table 2: Bleeding type with number of patients

Bleeding Type	No. of women's
Heavy Menstrual Bleeding	10
Frequent Menstrual Bleeding	6
Heavy or Prolonged Bleeding	5
Intermenstrual Bleeding	4
Infrequent Menstrual Bleeding	3
Postmenopausal bleeding	2
Total	30

The table 2 showed the type of bleeding. The Heavy Menstrual Bleeding was found in maximum cases i.e. in 10womens. The Frequent Menstrual Bleeding was seen in 6 women's. 5 patients showed Heavy or Prolonged Bleeding. Intermenstrual Bleeding and Infrequent Menstrual Bleeding was observed in each 3 patients. 2 patients showed the Postmenopausal bleeding.

Table 3: Endometrial Histopathology observation

Endometrial Histopathology observation	No. of women's
Proliferative Endometrium	11
Secretory Phase	7
Endometrial Hyperplasia	4
Menstrual Phase	2
Atrophic Endometrium	4
Endometrial Metaplasia	2
Total	30

The table 3 showed the Proliferative Endometrium as prominent histopathological pattern in 11 patients. Secretory Phase was seen in 7womens, Endometrial Hyperplasia is seen in 4, Menstrual Phase observed in 2 patients. Atrophic Endometrium was followed in 4 patients followed by Endometrial Metaplasia in 2 patients.

The endometrium undergoes periodic changes in response of the hormonal changes.

Abnormal uterine bleeding occurrs as heavy, prolonged or acyclic flow at menopausal transition or as spotting or minimal bleeding at post-menopausal period needs thorough evaluation, since it may be clinical manifestation pointing towards endometrial cancer [4].

According to WHO the endometrial hyperplasia are classified as simple or complex. It is based on the absence or presence of architectural abnormalities like glandular complexity and crowding, further designated as atypical if they show nuclear atypia [5].

The incidence of abnormal uterine bleeding was more in perimenopausal age group than postmenopausal agegroup, may be due to earlier evaluation and treatment of these patient [6].

Conclusion

The histopathological study of endometrium in females with abnormal uterine bleeding above the ageof 40 years plays an important role in diagnosing various histological patterns and aetiopathological factors. Hence histopathological examination is mandatory, in cases of peri-menopausal and postmenopausal abnormal uterine bleeding.

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