Original Article

Ultrasonographic correlation of abnormal uterine bleeding at perimenopusal stage

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Abstract

Introduction: The perimenopause is a critical time in a woman's life. Perimenopause is described as years prior to menopause that encompasses the change from normal ovulatory cycle to cessation of menses, these are perimenopausal transitional years. **Aims and Objectives:** To study Ultrasonographic correlation of abnormal uterine bleeding at perimenopusal stage. **Methodology:** This was cross-sectional study carried out in gynecological OPD with the complaints of excessive per vaginal bleeding and who were in the age group between 37 to 51 years were considered. In this period total 150 patents were included into study. Clinical diagnosis and same patient's undergone Histopathological and Ultra sonographic investigations the findings of these three investigations were co-related. **Results:** Most of the patients in the present study were between 37-41 years i.e. 56%. Followed by 42-46. i.e. 25.33% and in 47-51 were 18.67%. Majority of the patients on Ultrasonographic findings Shown No obvious pathology In 62% patients, Leiomyoma in 21.33%, followed by Adenomyosis in 5.33%, s/o PID in 2%, s/o Carcinoma growth in 2%. in Clinical Ultrasonographic, Histopathological was found for Leiomyoma i.e. 21.33 %, 21.33%, 21.33% followed by Carcinoma of Cervix, PID, DUB i.e. 44%, 7.33%, 34.67%; 4.67, 2, 5.33;44, 7.33, 34.67 respectively etc. **Conclusion:** Except DUB, all other cases of AUB correlated well clinically and histologically. Leiomyoma and cervical growth were the only entities, which correlated well clinically, ultrasonographically as well as histologically. Leiomyoma, cervical growth correlated well clinically and ultrasonographically as well as histologically. Whereas DUB, adenomyosis, polyp, PID did not correlate well clinically, ultrasonographically as well as histologically. Adenomyosis was a histopathological diagnosis. DUB was an overestimated diagnosis clinically.

Keywords: Abnormal uterinebleeding (AUB), Dysfunctional Uterine Bleeding (DUB)Perimenopusal stage.

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INTRODUCTION

The perimenopause is a critical time in a woman's life. Perimenopause is described as years prior to menopause that encompasses the change from normal ovulatory cycle to cessation of menses, these are perimenopausal transitional years. Different opinions are expressed as which years in women's life should be accepted as perimenopausal period. Perimenopause refer to the time period in the late reproductive years, usually late 40s to early 50s. Characteristically, it begins with menstrual cycle irregularity and extends to 1 year after permanent cessation of menses. The more correct terminology for this time is menopausal transition. This transition typically develops over a span of 4 to 7 years, and the average age at its onsandis 47 years.[1] During the menopausal transition, more erratic fluctuations in female reproductive hormones can lead to an array of physical and psychological symptoms such as Changes in menstrual patterns, Vasomotor symptoms, Psychological and metal disturbances, Sexual dysfunction, Somatic symptoms, Dry, itchy skin[2] Abnormal uterine bleeding (AUB) is a symptom and not a disease. It is one of the most frequently encountered complaints in gynecologic practice. It accounts for more than 70% of all gynecological consultations in the peri menopausal age group.[3] It occurs in various forms such as menorrhagia,

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polymenorrhea, polymenorrhagia, metrorrhagia, and menometrorrhagia.[4] The International Federation of Gynaecology and Obstetrics in November 2010, accepted a new classification system for causes of AUB in the reproductive years. The system based on the acronym (polyps, adenomyosis, leiomyoma, malignancy and hyperplasia–coagulopathy, ovulatory disorders, endometrial causes, iatrogenic, not classified) was developed in response to concerns about the design and interpretation of basic science and clinical investigation that relates to the problem of AUB.[5]AUB may be an expression of hormonal milieu, or it could be the clinical presentation of benign or malignant lesions of female genital tract in perimenopausal woman. However, there are no detectable structural abnormalities in majority of cases, and this is called dysfunctional uterine bleeding (DUB). DUB, fibroid uterus, and adenomyosis are the common hyperoestrogenic conditions where endometrium remains in the proliferative phase and if untreated may lead to endometrial carcinoma. Therefore, clinical examination and investigations are essential to find out the etiological factor in a perimenopausal patient presenting with AUB. Ultrasonography (USG) can be used to exclude organic pathology for AUB. AUB is one of the main gynecological reasons of hysterectomy and accounts for two-thirds of all hysterectomies.[6]

MATERIA AND METHODS

This was cross-sectional study carried out in gynecological OPD with the complaints of excessive per vaginal bleeding and who were in the age group between 37 to 51 years were considered. Also women complaining of abnormal uterine bleeding per vaginum in some form or other were studied. A detailed history of the patient was obtained taking into account any associated symptoms like dysmenorrhea, dyspareunia, postcoital bleeding, intermittent spotting, unhealthy discharge, foul smelling discharge, heaviness and discomfort in the lower abdomen, backache and any other constitutional symptoms was obtained. The study was carried out at over a period of 12 months from Jan 2010 to Jan 2011. In this period total 150 patents were included into study. Per Speculum Examination done to note the condition of vagina - any erosion, growth, suspicious looking area, any polyp seen, any discharge, Per Vaginal Examination - To note, Size and position of the uterus, Mobility, Consistency, Irregularity, Tenderness, Any adnexal lump, Per Rectal Examination- in all suspected cases of carcinoma, Routine investigations, HemoglobinUrine routine / microscopy, Peripheral blood smear, Platelandcount, Bleeding time, Clotting time, HIV test, HbsAg , Blood sugar random etc. done for confirmation of clinical diagnosis and same patients undergone Histopathological and Ultra sonographic investigations the findings of these three investigations were co-related.

RESULT

Table 1: Age Distribution of Women with Abnormal Uterine Bleeding At Perimenopausal Age

Sr. No.	Age Group of Patients in Years	No. of Patients	Percentage
1	37-41	84	56
2	42-46	38	25.33
3	47-51	28	18.67
Total		**150**	

Most of the patients in the present study were between 37-41 years i.e. 56%. Followed by 42-46 i.e.25.33% and in 47-51 were 18.67%.

Table 2: Ultrasonographic Diagnosis

Sr. No.	Ultrasonographic Findings(n=150)	No. of cases (Percentage of Total Cases)
1	DUB	11 (7.33)
2	Leiomyoma	32 (21.33)
3	Adenomyosis	8 (5.33)
5	s/o PID	3 (2)
6	s/o Carcinoma growth	3 (2)
7	No obvious pathology	93 (62)
	Total	**150**

(P<0.005)

From above Table it is clear that the majority of the patients on Ultrasonographic findings Shown No obvious pathology In 62 % patients, Leiomyoma in 21.33 % , followed by Adenomyosis in 5.33% , s/o PID in 2% , s/o Carcinoma growth in 2%.

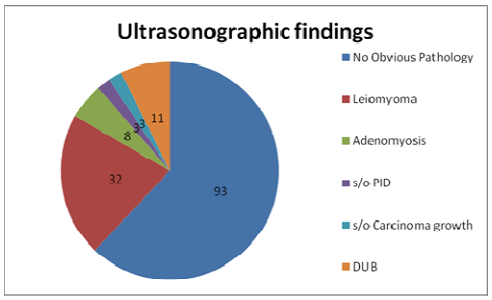

Figure 1:

Table 3: Correlation between Clinical, Ultrasonographic, and Histopathological Examination

Sr. No.	No. of cases	Clinical Diagnosis No of Cases (Percentage)	USG Diagnosis No of Cases (Percentage)	HP Diagnosis after Sampling No of Cases (Percentage)
1	DUB	66 (44)	11 (7.33)	52 (34.67)
2	Leiomyoma	32 (21.33)	32 (21.33)	32 (21.33)
3	Adenomyosis	21 (14)	8 (5.33)	33 (22)
4	Polyp	18 (12)	0 (0)	18 (12)
5	PID	7 (4.67)	3 (2)	8 (5.33)
6	Carcinoma Cervix	3 (2)	3 (2)	3 (2)
7	Carcinoma Endometrium	0 (0)	0 (0)	1 (0.67)
8	Others	3(2)	0 (0)	_

Other category includes AUB due to thrombocytopenia and aspirin (anti-platelanddrug).

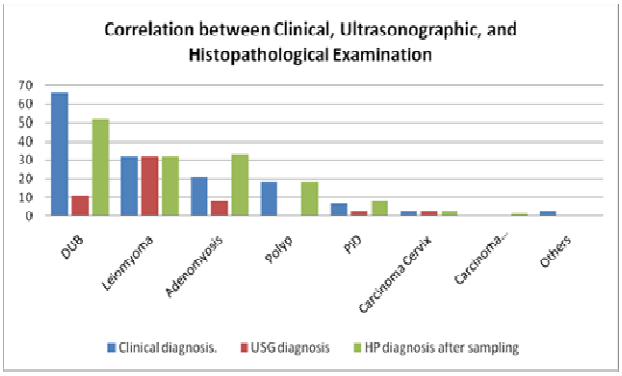

Figure 2:

From above Table and Graph it is clear that maximum correlation in Clinical Ultrasonographic, Histopathological was found for Leiomyoma i.e. 21.33 % , 21.33%, 21.33% followed by Carcinoma of Cervix, PID, DUB i.e. 44%, 7.33%, 34.67%; 4.67, 2, 5.33; 44, 7.33, 34.67 etc.

DISCUSSION

The TVUS is a simple and non-invasive diagnostic modality of studying the endometrial pattern and its thickness accurately, and at the same time to exclude organic pathology in cases of AUB. The high frequency transducer placed nearer to the region of interest permits better visualisation of the uterus and the endometrium.[10] In our study Findings suggestive of no obvious pathology were detected on ultrasonography in 62% of total 150 cases as shown in Table 10. Leiomyoma was the sonographic diagnosis in all clinically suspected myoma cases (100%). Ultrasonographic evidence of carcinoma cervix was observed in all 3 cases of carcinoma cervix. (100%).Ultrasonography was suggestive of adenomyosis in 38.1% of total clinically suspected adenomyosis cases.DUB was diagnosis in 11 cases. No obvious pathology is highly significant than the other ultrasonographic findings, calculated statistically which was <0.001 (Table 2). No obvious pathology included clinically diagnosed cases of PID, polyp, DUB, adenomyosis. Clinical as well as ultrasonography evaluation proved less useful for diagnosing adenomyosis and DUB. Leiomyoma was the sonographic diagnosis in all clinically suspected myoma cases (100%) in a study by Archana B andal (2010).[11] The final pathologic (true) diagnosis confirmed the clinical indication in all cases (100% correlation) of leiomyomas, adenomyosis and endometrial polyps.[12] A study was conducted on terminology and evaluation of abnormal uterine bleeding in perimenopausal women, evaluated a sample of 433 perimenopausal patients with abnormal uterine bleeding. Out of 341 patients, 79% had ultrasonographic evidence of no anatomic abnormality.[13] These findings are in confirmation withstudy, Bharat Talukdar[14] 103 numbers of perimenopausal hysterectomized patients were analyzed. Most number of patients (69.67%) were between 40 and 45 years age group. The common menstrual problem was menorrhagia (43.69%). This finding was comparable with the study of Jetley *andal*.[7] and Shobha,[8] in which clinical presentation as menorrhagia in AUB evaluation revealed 46.4% and 46.6%, respectively. It appeared in this study that the maximum patients attended hospital for treatment after suffering for 3–6 months (54.37%) which was comparable to the study of Kathuria and Bhatnagar (50%).[9] also in confirmation with Shobha S. Pilla[15].

CONCLUSION

Except DUB, all other cases of AUB correlated well clinically and histologically. Leiomyoma and cervical growth were the only entities, which correlated well clinically, ultrasonographically as well as histologically. Leiomyoma, cervical growth correlated well clinically and ultrasonographically as well as histologically. Whereas DUB, adenomyosis, polyp, PID did not correlate well clinically, ultrasonographically as well as histologically. Adenomyosis was a histopathological diagnosis. DUB was an overestimated diagnosis clinically.

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