Histopathological findings in hysteroctomized sample of women with abnormal uterine bleeding attending Al- Batool Maternity Teaching Hospital-Baquba-Iraq

Sarah Walied Rahiem (MBChB) [1], **SawsanTalib Salman** (MBChB, FICMS)[2] and **Walied Rahiem Mahmod** (MBChB, MSc, DC)[3]

Abstract

Background: Abnormal uterine bleeding considered as one of the most common and challenging problems presenting to the gynecologist; it is responsible for a lot of outpatient gynecologic visits.

Objective: To identify histopathological pattern in hysteroctomized sample of women with abnormal uterine bleeding .

Patients and Methods: Descriptive study was carried out in the Department of Obstetrics and Gynecology in Al-Batool Teaching Hospital in Baquba City, during the period from 15th July 2015 to 14th December 2015. A total of thirty three women presenting with abnormal uterine bleeding who was admitted for total abdominal hysterectomy during the study period. Prepared paper of questionnaire used for patient including full history and examination. Specimens of uterus and adnexa after hysterectomy were sent for histopathalogical study by specialist histopathologist.

Results: In this study highest percentage of abnormal uterine bleeding was with age group 46-55years (51.51%), and the lowest percentage with age group 76-85years (3.03%). grandmultiparous had higher percentage (60.61%) while low parity had lowest percentage (9.09%). Fibroid was the most common histopathological findings (42.42%) and the lowest percentage with secretary bleeding (3.03%). The histopathological findings varied with age and parity in hysterectomized specimens and samples.

Conclusion: Fibroid constitute the majority of cases that attend our hospital for hysterectomy followed by proliferative endometrium so all patient with abnormal uterine bleeding should be evaluated for underlying structural causes.

Key words: Abnormal uterine bleeding, hysterectomy, fibroid, age , parity.

Corresponding Author: hajiasawsan@yahoo.com

Received: 5th June 2016

Accepted: 21th August 2016

[1,2]College of Medicine -University of Diyala - Diyala - Iraq.
[3]Baquba Teaching General Hospital-Diyala- Iraq.

Introduction

Menstruation is defined as physiological shedding of endometrium accompanied by loss of blood during the reproductive age between the menarche and menopause. The normal menstrual cycle occur at monthly intervals with arrange of (21-35) days, the flow lasts(5±2) days, and the average blood loss (40± 20) ml [1].

Abnormal uterine bleeding (AUB) is defined as bleeding pattern that differs in frequency, duration and amount from a

pattern observed during a normal menstrual cycle or after menopause [2].

Abnormal uterine bleeding is considered one of the most common and challenging problems presenting to the gynecologist; it is responsible for as many as one-third of all outpatient gynecologic visits [3]. It can be caused by a wide variety of systemic diseases such as endocrine disorders or drugs. On the other hand, it may be related to pregnancy, anovulation, fibroids, polyps, adenomyosis or neoplastia [4].

Many terms used to describe abnormal uterine bleeding like amenor¬rhea, oligomenorrhea, metrorrhagia, Menorrhagia. Menometrorrhagia, Postmenopausal bleeding, Polymenorrhgia, Polymenorrhea [5].

Unfortunately, most of these terms are ill defined and may be used quite differently in different parts of the world. The situation becomes even less well defined when terminologies such as dysfunctional uterine bleeding (DUB) also are considered [6].

In 2011, a new system for the classification of AUB was approved by the International Federation of Gynecology and Obstetrics (FIGO) which included contributions from an international group of clinician-investigators from 6 continents and over 17 countries .This classification system is stratified into nine basic categories that are arranged according to the acronym PALM-COEIN: polyp, adenomyosis, leiomyoma, malignancy and hyperplasia, coagulopathy, ovulatory dysfunction, endometrial disorder, iatrogenic and not yet classified [7].

Different approaches used to assessment of abnormal uterine bleeding, these divided into invasive and non invasive (transvaginal ultrasound ,infusion sonohystrography) and invasive (endometrial biopsy or called office endometrial biopsy by pipelle, dilatation and curettage ,hysteroscopy directed biopsy) [8,9].

Hysterectomy is an invasive surgical option that usually is recommended only after other therapies for AUB have failed and for women who do not wish to retain their fertility[10,11].

So the aim of this study to identify different histopathological pattern in a sample of hystroctomized women presented with abnormal uterine bleeding .

Patients and Methods

Descriptive study was carried out in the Department of Obstetrics and Gynecology in Al-Batool Teaching Hospital in Baquba City. During the period from 15th July 2015 to 14th December 2015. A total of thirty three women presenting with abnormal uterine bleeding who were admitted for total abdominal hysterectomy during the study period.

All the patient after signing informed consent for acceptance to enrolled in this study, relevant medical, gynecological, socio-demographic characteristics were gathered using especial questionnaires that include:(history of previous menstrual history like pattern of bleeding, date of last menstrual period, age, parity, socioeconomic state). Full physical and pelvic examination were performed and pregnancy test with baseline investigation including full blood count, coagulation screen (bleeding time ,clotting time), random blood sugar, liver function test ,thyroid function test, pap smear result ,transvaginal ultrasonography for the uterus and ovaries. Women with bleeding due to pregnancy related complications, bleeding disorders, history / evidence suggestive of acute pelvic infection and on hormonal treatment for abnormal uterine bleeding were excluded from the study. Specimens of uterus and adnexa after hysterectomy were sent for histopathalogical to be studied by specialist histopathologist . Data were analyzed by using spss version 17.0 as tables with numbers and percentage.

Results

Figure 1 show the age groups of patients presented with abnormal uterine bleeding ,the highest percentage was with age 46-55 years (51.51%), and the lowest percentage with age 76-85 years (3.03%).

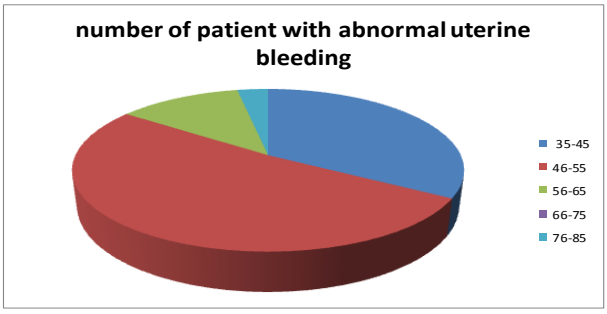

Figure (1): Age groups of patient with abnormal uterine bleeding

Regarding the parity of the patient it was found that grandmultiparous had highest percentage (60.61%) while low parity had lowest percentage (9.09%). As shown in figure 2.

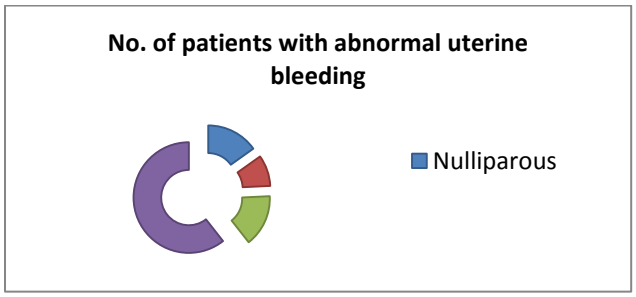

Figure (2): Parity of patient presenting with abnormal uterine bleeding.

Regarding histopathological finding in hysterectomy specimens as shown in Table 1 the fibroid has high percentage (42.42%) compared with proliferative bleeding (36.36%) followed by endometrial polyp (12.12%) then adenomyosis (6.07%) and the lowest percentage with secretary bleeding (3.04%).

Table (1): Histopathological finding in hysterectomized specimens.

Type of histopathology	No	%
Fibroid	14	42.42
Endometrial polyp	4	12.12
Adenomyosis	2	6.07
Proliferative changes	12	36.36
Secretary changes	1	3.03
Total	33	100

*Nulliparous :a women who has not delivered a child who reached viability.

Also we found benign serous cystadenomas 2 cases, mucinous cystadenomas 2 cases ,bilateral ovarian serous papillary cystadenocarcinoma 1 case, and intermediate Brenner tumor 1 case.

The histopathological finding varied with age as fibroid mostly presented in age (46-55 yrs), and the lowest percentage with age (56-65 yrs), (76-85 yrs.). Slightly higher percentage of endometrial polyp presented in age (65-65 yrs) lower than (46-55 yrs) . The adenomyosis only presented in age (46-55 yrs).The proliferative bleeding presented mostly in age (35-45 yrs).The secretory bleeding present only in age (46-55 yrs). Table (2).

Table (2): The histopathological findings inhysteroctomized specimens in patients with abnormal uterine bleeding according to age.

	Histopathological sample				
Age	Fibroid No.(%)	Polyp No.(%)	Adenomyosis No.(%)	Prolifrative endometrium No.(%)	secretory endometrium No.(%)
35-45 y	5 (15.15%)	0(%0)	0(0%)	6 (18.18%)	0(0%)
46-55 y	7 (21.21%)	2 (6.06%)	2 (6.06%)	5 (15.15%)	1 (3.03%)
56-65 y	1 (3.03%)	3 (9.09%)	0(0%)	0(0%)	0(0%)
66-75 y	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)
76- 85 y	1(3.03%)	0 (0%)	0 (0%)	0(0%)	0(0%)

Histopathological finding also varied with parity as fibroid presented with the same high percentage in nulliparous and grand multiparous (15.15%) followed by the same low percentage in low parity andmultiparity (6.06%),the endometrial polyp presented mostly in grand multiparous (9.09%) followed by low parity (3.03%), the adenomyosis had the same percentage in both multiparity and grand multiparity(3.03%),the proliferative bleeding had high percentage in grand multiparous(30.30%) followed by multiparity (6.06%), the ovulatory bleeding present only with low percentage (3.03%) in grandmultiparous. Table (3).

Table (3): The histopathological findings in hysteroctomized specimens in patients with abnormal uterine bleeding according to parity.

	Histopathological findings				
Parity	Fibroid No.(%)	Polyp No.(%)	Adenomyosis No.(%)	Prolifrative endometrium No.(%)	secretory endometrium No.(%)
nulliparous	5 (15.15%)	0(%0)	0(0%)	0(0%)	0(0%)
low parity	2(6.06%)	1(3.03%)	0(0%)	0(0%)	0(0%)
multiparity	2(6.06%)	0(0%)	1(3.03%)	2(6.06%)	0(0%)
grandmultiparity	5(15.15%)	3(9.09%)	1(3.03%)	10(30.30%)	1(3.03%)

Discussion

In this study the most common age group with abnormal uterine bleeding were (46-55yrs) this findings agree with Vaidya *et al.* 2013 ,who found that most patients with abnormal uterine bleeding with age group (41-50 yrs) and also in concordance with Anuradha *et al.* 2015, that the majority of patients were (40-49 yrs) [2,4].

This may be due to that the patients in their climactric period with decrease in ovulatory reserve and decrease estradiol level this leading to frequent unovulation and abnormal uterine bleeding, and less findings in age group (76-85 yrs) and this agree with Doraiswami *et al.* 2011 ,who found the same results may be because of early diagnosis of condition in young age and adequate treatment therefore decreasing in total age. [12].

Also in this study maximum number of cases were grandmultiparity (equal or more than 5) and this agree with Anuradha *et al.* 2015 and Mahmoud *et al.* 2013 ,who reach to the same findings. This meaning that abnormal uterine bleeding increase with increase parity as general population show higher incidence of multiparity [1,4].

Among women undergoing hysterectomy the histopathological findings showed that the most common lesion was fibroid (42.42%) the incidence increase with age peak in (46-55 yrs) age group and decline with increase age to be just (3.04%) with (76-85 yrs) this may be due to menopausal changes that lead to atrophy of the uterus and decrease in the hormones production but its percentage equal in nulliparity and grandmultiparity .While the second common lesion was proliferative endometrium (36.36%) andincidence increase with increase age and parity peak at (46-55 yrs) and parity of equal or more than five. These findings not agree with Seara 2014 who found that the most common histopathological lesion was endometrial hyperplasia [13], and not agree with Layla *et al.* 2011 who found that the most common pathological finding was endometrial polyp and the incidence increase with increase age [3]. While in this study the endometrial polyp was only found in (15.15%) of all cases and it is not affected by age and parity.

Proliferative endometrium was higher percentage in age group of (35-45 yrs) compared with age group (46-55 yrs) and (18.18%,15.15%) respectively and this not agree Usha et al. 2014, Anuradha et al. 2015 ,who found that the most common lesion was proliferative endometrium [4,14].

In this study interesting findings that there was no case or hysterectomy specimens diagnosed with endometrial carcinoma in any age group enrolled in this study even in post menopausal women with age (56-85 yrs), apart from three cases of endometrial polyp and one case of fibroid found in age group (56-65 yrs) and only one case diagnosed in age (76-85 yrs) these finding completely not agree with Nasira *et al*. 2010 who found that the risk of endometrial carcinoma increase with age with approximately 1% at age of 50 yrs to 25% at age of 80 yrs [15]. Also not agree with Bani *et al*. 2011 and also disagree with Kauser *et al.* 2010, who found that atrophic endometrium was the most predominant findings in women in post menopausal period (52%), adenocarcinoma of endometrium was found in 9% of the sample and the peak incidence of carcinoma in age group (70-74 yrs) [16,17].

In six women significant ovarian pathological condition were observed accidentally by histopathological study of hysterectomy specimens that done for abnormal uterine bleeding and this agree with Bani *et al.* 2011.[16].

The results of this study document that the late reproductive and peremenopausal age have more incidence of organic lesion compared with post menopausal patients this may be due to small size sample of this study because of limited time of search or most patients tend to had early consultation if they complain from abnormal uterine bleeding .

Absent of endometrial carcinoma from the histopathological specimens may be due to number of causes that include; first :lower socioeconomic state and presence of risk factors like obesity ,diabetes mellitus ,increase intake of animal fat ,and sedentary

life style is low, secondly: early child bearing and multiparity or may be because most of the cases of endometrial carcinoma not treated in our city but referred to oncological center in Baghdad for treatment and surgical staging ,post surgical chemotherapy or radiation.

In conclusion, abnormal uterine bleeding commonly affected women of peremenopausal age group and high parity which is alarming and needs through evaluation. fibroid constitute the majority of cases that attend our hospital for hysterectomy followed by proliferative endometrium so all patient with abnormal uterine bleeding should be evaluated for underlying structural causes.

References

[1] Mahmoud M, Aseel G. Endometrial histopathological changes in women with abnormal uterine bleeding in Kirkuk city ,aclinicopathological study .Medical Journal of Babylon 2013;10(3): p567-582.

[2] Vaidya S, Lakhey M. Histopathological pattern of abnormal uterine bleeding in endometrial biopsies. Nepal Med Coll J 2013;15(1): p74-77.

[3] Layla S, Nabeel S. Histopathological Pattern of Endometrial Sampling Performed for Abnormal Uterine Bleeding. Bahrian Medical Bulletin 2011;33(4): p1-6.

[4] Anuradha S, Premlata M. Spectrum of endometrial histopathology in women presenting with abnormal uterine bleeding. Sch J App Med Sci . 2015; 3(1A): p1-4.

[5] Mary G, Tarin A, Patrice M. Evaluation and management of abnormal uterine bleeding in premenopausal women. Am Fam Physician. 2012; 85(1): 35-43.

[6] Fraser I, Critchley H, Munro M *et al.* A process designed to lead to international agreement on terminologies and definitions to describe abnormalities of menstrual bleeding. Fertility and Sterility 2007;87(3): 466-476.

[7] Fozia U, Ahmed W. Distribution of causes of abnormal uterine bleeding using the new FIGO classification system .2013;63(8): 973-975.

[8] Marie C, Quebec Q, Tien L, Ottawa O. Epidemiology and investigation for suspected endometrial cancer. Joint Sogs-goc-Scc clinical practice guidline. 2013 ;35(291): S1-s9.

[9] Alison B. Diagnosis of endometrial cancer in women with abnormal vaginal bleeding. Sogs- clinical practice guidline 2000; (86):1-3.

[10] James V, Brenda B. Incidence rate of endometrial hyperplasia , endometrial cancer and hysterectomy from 1980 to 2003 within a large prepaid health plan. International Journal of cancer 2012; (131): 1921-1929.

[11] Zhimei L, Robert W. A systemic review evaluating health-related quality of life ,work impairment ,and health care-costs and utilization in abnormal uterine bleeding. Value in helth 2007;10 (3): 183-194.

[12] Doraiswami S, Tohnson T. Study of endometrial pathology in abnormal uterine bleeding. The journal of obstetrics and gynecology of India. 2011;61(4): 426-430.

[13] Saera A, Ara Y. Abnormal uterine bleeding A clinicopathological study of 150 cases. Ann Pak Inst Med Sci. 2013; 9(4): 201-204.

[14] Usha G, Doddamani G. Clinicopathological correlation of endometrium in abnormal uterine bleeding .Sch J App Med Sci. 2014; 2(1A):46-49.

[15] Nasira S, Kiran P. Postmenopausal bleeding: causes and risk of genital tract malignancy. J Ayub Med Coll Abbottabad 2010; 22(2):117-120.

[16] Bani I, AL-sumadi A. Histological finding in women with postmenopausal bleeding. Jordanian figures. EMHJ. 2011; 17(7): 582-586.

[17] Kauuser J, Razia B. Prevalence of malignant disorder in 50 cases of postmenopausal bleeding. J Pak Med Assoc 2010;60(7): p540-543.