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ENDOMETRIAL CARCINOMA;
INCIDENCE IN WOMEN WITH ABNORMAL UTERINE BLEEDING

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ABSTRACT… Background: Bleeding from the reproductive tract in women is a naturally occurring event, generally the result of menstruation and childbirth, and is not associated with a bleeding disorder in most cases. Dysfunctional uterine bleeding is the most common reason for women to undergo an interventional gynecologic procedure. The major task of the clinician is to exclude endometrial carcinoma in women and to identify organic pathology in order to manage it effectively. **Objective.** To determine the incidence of endometrial carcinoma in women with abnormal uterine bleeding. **Study Design:** Cross sectional study. **Setting.** Department of Obstetrics and Gynecology, Sheikh Zayed Hospital, Rahim Yar Khan. **Duration of study:** Six months (16th February 2013 to 15th August 2013). **Material and method:** One hundred and sixteen women with complaint of abnormal uterine bleeding, meeting the inclusion criteria were selected. All the patients were undergone endometrial sampling and assessment of endometrial thickness was done which was confirmed by endometrial biopsy to evaluate endometrial pathologies. The collected data was noted on pre-designed proforma. **Results:** The mean age was 42.07 years. According to parity, 56 women (48.2%) have 1-4 parity, 48 women (41.4%) have 5-8 parity and 12 women (10.4%) have 9-14 parity. The mean duration of dysfunctional uterine bleeding was 14.64±7.87 months. Six women (5.2%) have endometrial carcinoma while 110 women (94.8%) have no endometrial carcinoma. **Conclusion:** This study thus proved that in our setup the incidence of endometrial carcinoma is very high. So every patient with abnormal uterine bleeding should undergo endometrial biopsy to rule out endometrial carcinoma.

Key words: Endometrial carcinoma, Dysfunctional uterine bleeding, Menorrhagia.

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INTRODUCTION

Menstruation is one of the signs of puberty. It is cyclic shedding of the uterine endometrium during reproductive age. Menstruation usually begins at an average age of 13 years and ceases permanently at an average age of 51 year. Every month menstrual bleeding lasts for 2-7 days with an average cycle of 28 days and blood loss of 30-80 ml.[1] In developed countries, the endometrial carcinoma is the most common gynecological cancer; however in developing countries it is less common than carcinoma of the cervix. In less-developing countries, cancer of the cervix is quite prevalent.[2]

Ninety percent of women with endometrial cancer are over 50 years of age, but a few cases may occur before the age of 40.[3] It affects about 1 woman in 100, usually in the mid to late 50s but it can be into later life. It is most common in Western societies but is becoming more common in Asia. In the United Kingdom there are about 7,400 new cases per year.[4,5]

The endometrial carcinoma is the most frequently occurring female genital cancer. Approximately 40,100 cases of cancer were predicted to occur in the United States in 2008, making it the fourth most common cancer among women; approximately 7,400 will die from the disease.[6]

The endometrial hyperplasia is excessive proliferation of cells of the endometrium which result from high levels of estrogens, combined with insufficient levels of the progesterone-like hormones which ordinarily counteract estrogen's

proliferative effects on this tissue. This may occur in a number of settings, including obesity, polycystic ovary syndrome, estrogen producing tumours (e.g. granulose cell tumour) and certain formulations of estrogen replacement therapy, so careful monitoring and treatment of women with this disorder is essential.[7]

Simple or cystic hyperplasia is a benign proliferation of endometrial glands that are irregular and dilated but do not display back to back crowding or cellular atypia. Besides endometrial hyperplasia, prominent risk factors for endometrial carcinoma are unopposed oestrogen therapy, obesity, diabetes early menarche and late menopause.[8] Atypical endometrial hyperplasia simple or complex architectural changes with worrisom atypical changes in glands cells. 22% of patients with atypical hyperplasia eventually develop endometrial carcinoma.

When pattern of normal menstruation is disturbed by any reason, it is called abnormal uterine bleeding and excessive uterine bleeding with no demonstrable organic cause either genital or extragenital is called dysfunctional uterine bleeding.[9]

Dysfunctional uterine bleeding is irregular uterine bleeding that occurs in the absence of pathology or medical illness. It most commonly occurs when the ovaries do not ovulate. Changes in hormone levels cause the period to be later or earlier and sometimes heavier than normal. The bleeding is unpredictable in many ways. It might be excessively heavy or light, prolonged, frequent, or random.[10,11]

Endometerial carcinoma was detected in 18% of hysterectomy specimens in cases of abnormal uterine bleeding in a local study conducted at Rawalpindi.[12]

Rationale of this study is early detection of endometrial carcinoma for early treatment of patients. A proper screening strategy should be planned for whole population. This will help in the better prognosis of the disease.

OBJECTIVE

To determine the incidence of endometrial carcinoma in women with abnormal uterine bleeding.

OPERATIONAL DEFINITIONS

Endometrial cancer

Endometrial carcinoma is histopathological diagnosis of the endometrium made by endometrial sampling. Endometrial cancer starts in the endometrium – the lining of the uterus. Thickening of the endometrium indicates the presence of significant pathology (e.g. endometrial cancer) being present.

Dysfunctional uterine bleeding is abnormal bleeding from the uterus when cycle length is shorter or longer than normal, flow is heavy or scanty or changes in the duration of bleeding (<2 days or >7days).

MATERIAL AND METHODS

Setting

Department of Obstetrics and Gynecology, Shaikh Zayed Hospital, Rahim Yar Khan.

Study Duration

Six months (16th February 2013 to 15th August 2013)

Sample Size

Sample size is 116 patients presenting in gynae and obstetrics department.

Sampling technique

Non-probability purposive sampling.

SAMPLE SELECTION

Inclusion Criteria

- Women of age >35 years presenting with dysfunctional uterine bleeding
- Abnormal uterine bleeding for >3 months

Exclusion criteria

- Women with bleeding disorders
- Drug intake
- Advance stage of endometrial carcinoma
- No other genital tract pathology or systemic illness

- Patient with recent MI (i.e. history of MI in 2 last weeks)

Study design
Cross sectional study.

DATA COLLECTION PROCEDURE
A proforma has been specifically designed to record findings of this study. One hundred and sixteen women attending outpatient department of Obstetrics & Gynecology, Shaikh Zayed Hospital Rahim Yar Khan with complaint of abnormal uterine bleeding, meeting the inclusion criteria was selected.

Patients were included in the study after taking informed consent and will be ensured of their confidentiality. Study was conducted after approval from Ethical Committee of the Institution.

All the patients were undergone endometrial sampling and assessment of endometrial thickness was done which was confirmed by endometrial biopsy to evaluate endometrial pathologies.

DATA ANALYSIS
Data was entered and analyzed by SPSS-17. Descriptive statistics were used to analyze the data. Mean and standard deviations were calculated for age of patient and duration of dysfunctional uterine bleeding. Frequencies of parity and endometrial carcinoma were calculated. To control effect modified stratification was done on age of the patient, duration of dysfunctional uterine bleeding and parity to see the effect of these on outcome variable through chi-square test. P-value <0.05 was considered significant.

RESULTS
One hundred and sixteen women with complaint of abnormal uterine bleeding were included in this study.

There were 92 patients (79.3%) in age group between 35-45 years, 19 patients (16.4%) in age group 46-55 years and 5 patients (4.3%) in age group 56-65 years. The mean age was 42.07 years (Table I).
According to parity, 56 women (48.2%) have 1-4 parity, 48 women (41.4%) have 5-8 parity and 12 women (10.4%) have 9-14 parity (Table II).

Table III showed the duration of dysfunctional uterine bleeding, 67 women (57.7%) have 6-12 months, 43 women (47.1%) have 18-24 months and 6 women (5.2%) have 30-36 months duration of dysfunctional uterine bleeding with mean±SD of 14.64±7.87 months.

Six women (5.2%) have endometrial carcinoma while 110 women (94.8%) have no endometrial carcinoma (Table IV).

Regarding endometrial carcinoma in age group, 1 woman (0.8%) between 35-45 years, 4 women were (3.5%) between 46-55 years and 1 woman (0.8%) 56-55 years. Statistically the difference was significant [P = 0.030] (Table V).

Table VI showed the duration of dysfunctional uterine bleeding, 2 women (1.7%) have 6-12 months, 3 women (2.6%) have 18-24 months and 1 woman (0.8%) has 30-36 months. The difference was not significant (P = 0.363).

According to parity of women, 4 women (3.4%) have 5-8 parity and 2 women 1.8%) have 9-14 parity. Statistically the difference was significant [P = 0.007] (Table VII).

Age (years)	Frequency	Percentage
35 – 45	92	79.3
46 – 55	19	16.4
56 – 65	5	4.3
Mean±SD	42.07±6.72	

Table-I. Frequency and percentage of age (n = 116)
Key: SD Standard deviation

Parity	Frequency	Percentage
1 – 4	56	48.2
5 – 8	48	41.4
9 – 14	12	10.4

Table-II. Frequency and percentage of parity (n = 116)

Duration of dysfunctional uterine bleeding (months)	Frequency	Percentage
6 – 12	67	57.7
18 – 24	43	37.1
30 – 36	6	5.2
Mean±SD	14.64±7.87	

Table-III. Frequency and percentage of duration of dysfunctional uterine bleeding (n = 116)
Key: SD Standard deviation

Endometrial carcinoma	Frequency	Percentage
Yes	6	5.2
No	110	94.8

Table-IV. Frequency and percentage of endometrial carcinoma (n = 116)

Age (years)	Yes		No	
	No.	%	No.	%
35 – 45	1	0.8	91	78.5
46 – 55	4	3.5	15	12.9
56 – 65	1	0.8	4	3.5

Table-V. Frequency and percentage of age according to endometrial carcinoma (n = 116)
χ^2 = 34.740 df = 21 P = 0.030

Duration of dysfunctional uterine bleeding (months)	Yes		No	
	No.	%	No.	%
6 – 12	2	1.7	65	56.0
18 – 24	3	2.6	40	34.5
30 – 36	1	0.8	5	4.4

Table-VI. Frequency and percentage of age according to Duration of dysfunctional uterine bleeding (months) (n = 116)
χ^2 = 10.924 df = 10 P = 0.363

Parity	Yes		No	
	No.	%	No.	%
1 – 4	-	-	56	48.2
5 – 8	4	3.4	44	37.9
9 – 14	2	1.8	10	8.7

Table-VII. Frequency and percentage of age according to parity (n = 116)
χ^2 = 25.614 df =11 P = 0.007

DISCUSSION

Abnormal uterine bleeding is a common presenting symptom in the family practice setting. In women of child-bearing age, a methodical history, physical examination, and laboratory evaluation may enable the physician to rule out causes such as pregnancy and pregnancy-related disorders, medications, iatrogenic causes, systemic conditions, and obvious genital tract pathology. Dysfunctional uterine bleeding (anovulatory or ovulatory) is diagnosed by exclusion of these causes. Abnormal uterine bleeding can signify an underlying malignant lesion affecting the female geniital tract .Abnormal bleeding is observed in 80_90% of pre and post menopausal women with endometrial carcinoma.A careful diagnostic approach is necessary in perimenopausal women with abnormal uterine bleeding. In women of childbearing age who are at high risk for endometrial cancer, the initial evaluation includes endometrial biopsy; saline-infusion sonohysterography or diagnostic hysteroscopy is performed if initial studies are inconclusive or the bleeding continues.[13] Women of childbearing age who are at low risk for endometrial cancer may be assessed initially by transvaginal ultrasonography. Post-menopausal women with abnormal uterine bleeding should be offered dilatation and curettage. Medical management of anovulatory dysfunctional uterine bleeding may include oral contraceptive pills or cyclic progestins. Surgical management may include hysterectomy or less invasive, uterus-sparing procedures.[14,15]

Saadia et al[16] conducted a study on diagnostic accuracy of endometrial curretage in endometrial pathology. Fifty five female pts were included in the study. They made comparison of endometrial biopsy and hystrectomy specimens. and reported the mean age 42.5 years in their study. Whereas in the present study, mean age of 42.07 years (table I). The results are consistent with the local study. Incidence of endometrial carcinoma was 12%.while in our study the incidence is 5.2%. They also studied associated features of chronic endometritis, endometrial polyp, disordered proliferative endometrium, hormone imbalance effect, and endometrial hyperplasia.

Shazia riaz et al[17]at department of obstetrics and gynaecology Rawalpindi conducted a study on 100 women with menorrhagia in premenopausal age group. Luckily they found only one case of endometrial carcinoma in age group 45-49 years. Incidence of carcinoma was 1%.they also studied other histopathological patterns like proliferative phase, secretary phase, simple cystic hyperplasia, chronic non specific endometritis, chronic granulomatous endometritis and adenomatous hyperplasia.

CONCLUSION

As incidence of endometrial carcinoma (5.2%) is very high in our area, so all pts having dysfunctional uterine bleeding during late reproductive age >35 years should be Screened for any endometrial pathology especially to detect endometrial carcinoma at very early stage.

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“With great power
comes great responsibility.”

Batman

AUTHORSHIP AND CONTRIBUTION DECLARATION

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