Original Research Paper

Volume - 12 | Issue - 08 | August - 2022 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Obstetrics & Gynaecology

CLINICO- HISTOPATHOLOGICAL CORRELATION IN WOMEN WITH POST MENOPAUSAL BLEEDING – A CROSS SECTIONAL ANALYSIS

Preethi Ravi	Department of Obstetrics and Gynecology, Chettinad Hospital and Research Institute, Kelambakkam, Chennai
Sailatha R*	Department of Obstetrics and Gynecology, Chettinad Hospital and Research Institute, Kelambakkam, Chennai *Corresponding Author
C R Anuradha	Department of Obstetrics and Gynecology, Chettinad Hospital and Research Institute, Kelambakkam, Chennai

ABSTRACT **Objective:** This study aims to evaluate women with post-menopausal bleeding by corelating the clinical data with endometrial pathology by endometrial sampling and to discover risk variables linked to the development of endometrial cancer in the future. **Methods:** For this study we retrospectively studied 48 women with postmenopausal bleeding who had undergone endometrial sampling. Their case record was obtained from the medical record department. Their detailed history, examination findings and reports of their investigation were collected from their case records. The same was analysed to seek correlation between clinical and histopathological examination features **Results:** In this study the mean age of women presented with postmenopausal bleeding was 54.94 and mean duration of menopause was 7.52 years. The mean endometrial thickness was 10.19mm. The histopathological analysis showed disordered proliferation (33%), irregular shedding (16.7 %), endometrial polyp (10.4%) and Enometrial atrophy (4.2%). Endometrial carcinoma like endometroid Ca (2.1%) and pleomorphic sarcoma (2.1%) were observed. The subjects also had cervical pathologies such as cervical erosion (10.4%), chronic papillary cervicitis (8.3%) and 3(6.3%) patients had squamous metaplasia of cervix **Conclusion:** Even though most occurrences of postmenopausal bleeding have benign causes, it is important to rule out premalignant and malignant endometrial lesions while analysing these cases. Postmenopausal bleeding can therefore be a sign of several etiologies other than cancer. Due to this, rigorous histologic study is necessary to distinguish between benign and malignant.

KEYWORDS :

INTRODUCTION:

Postmenopausal bleeding is any bleeding that occurs after a year of permanent cessation of menstruation due to reduced activity of ovarian follicles. 10% of women suffer from PMB [1,2]. The most prevalent cause for PMB is endometrial atrophy followed by endometrial hyperplasia and polyp. Postmenopausal bleed is considered abnormal until proven otherwise. It is the most common symptom in case of endometrial cancer and cervical cancer and hence should be investigated thoroughly. Endometrial carcinoma is the source of bleeding in about 10% of postmenopausal women [3]. All postmenopausal women with unexplained uterine bleeding should be evaluated for this potentially fatal illness.

As a result, PMB necessitated a thorough investigation to rule out malignancy and to identify and treat high-risk individuals, reducing the significant social burden imposed by endometrial carcinoma. As a first line investigation of choice, cervical cytology and Transvaginal ultrasound is recommended. And in suspected cases (ET >4mm in TVS, abnormal cytology report) Dilatation and curettage or biopsy should be done and sent for HPE analysis. However, now there is a debate about which should be the first diagnostic step in the clinical evaluation of women who present with PMB [4], transvaginal ultrasonography or endometrial biopsy.

OBJECTIVE:

This study is carried out in women with PMB to investigate clinical history, scans and correlate it with endometrial pathology retrospectively. The secondary goal is to identify the risk factors linked to the development of carcinomas.

METHODOLOGY:

Patients with Postmenopausal bleeding who were admitted and went through procedures like endometrial biopsy or fractional curettage were studied retrospectively in Obstetrics and Gynaecology department of tertiary care hospital and medical college in Chennai. This study was carried out with the permission of the institutional ethical committee. Women fulfilling the eligibility criteria were included.

Inclusion criteria

- Amenorrhea for 12 month and more
- Age over 40 years

Exclusion criteria:

- Age less than 40 years
- Surgical or radiation or drug induced menopause
- Patient on hormone replacement therapy.

All patient presented to the institution over the last 2 years with PMB and having undergone fractional curettage or biopsy were identified. Their detailed history, examination findings and reports of their investigation including blood and urine analysis, histopathological examination of endometrial sampling etc, was obtained from their case records. Pertinent abnormal findings were documented. The histopathological diagnosis was categorised as follows: Atrophy, Endometrial polyp, endometrial hyperplasia, Endometritis, Endometrial carcinoma, Irregular proliferation of Endometrium

Statistical analysis

All statistical analysis were performed using Statistical Package for Social Science (SPSS, version 17) for Microsoft windows. Descriptive statistics were presented as numbers and percentages. the data were expressed as Mean and SD. A chi-squared test was used for comparison between two attributes. A two-sided p value & lt; 0.05 was considered statistically significant.

RESULTS:

The study includes 48 women in total with postmenopausal . The mean age of the study group was 54.94 years and most of them were belongs to 51 to 60 years (52.1%). In our study regarding socioeconomical status, most of the women belonged to the lower middle (33.3%) and lower group (35.4%). Regarding comorbidities DM (25%) were seen more in number followed by HTN (16.7%). In our study most of the women presented with the complaints of bleeding (71%) and spotting (37.5%) (Table1).

Histopathological examination revealed the presence of 8(16.7%) women with irregular shedding, 16(33.3%) Disordered proliferation, 5(10.4%) with endometrial polyp. 2(4.2%) women had endometrial atrophy, 4(8.3%) with endometrial hyperplasia, 1(2.1) with squamous metaplasia with atypia and 4 (8.3%)patients has endometroid carcinoma, 1(2.1%) pleomorphic sarcoma. Cervical pathologies such as cervical erosion 5(10.4%), chronic papillary cervicitis 4(8.3%) and 3(6.3%) patients had squamous metaplasia of cervix (Table 2)

It has been studied that subject belonging to lower socio-economic class is more prone to postmenopausal bleeding 17(35%) followed by lower middle class. The incidence in the upper class is comparatively less 5(10.4%) (Table1).

4 (30.8%) of the 8 women with irregular endometrial shedding were between the ages of 40 and 50. In women aged 61 to 70, no such findings were discovered. 23.3% Women belonged to lower socioeconomic class whereas the upper class had no finding. Comorbidities such as diabetes and hypertension were observed in 25% of the women (Table 3).

Disordered proliferation of endometrium was found in 16 (33%) patients out of which 46.2% of people belonged to age 40-50 years, 24% from 51-60 years and 40% from 61-70 years. Major complaints of these subjects were abdominal pain (50%), spotting p/v (46.2%) or bleeding pv (27.3%). Associated comorbidities like diabetes (16%), HTN (25%) or both (60%) was found. Only 7 patients had no comorbidities. Whereas endometrial polyp was accounted for 10.4% of the population with maximum number at the age group between 51-60 years with comorbidities like systemic hypertension (25%) and diabetes (8.3%) (Table 3).

4 women (8.3%) had endometrial hyperplasia and 2 (4.2%) had hyperplasia without atypia with chronic endometritis. 15.4 % of the women were 40-50 years of age, 8% were between 51-60 years, 4 % at 51-60 years and 10 % above the age of 70 years. 20% women with simple hyperplasia belonged to the upper middle class and 11% to the lower class. All the women with endometrial hyperplasia without atypia belong to the middle SEC and had either diabetes or hypertension (Table 3)

4 patient who presented with postmenopausal bleeding had endometroid carcinoma among which 10% above 60 years of age, 8% between 51 – 60 years and 40 – 50 years has 7.7% had carcinoma. 1(2.1%) had women with hypertension. 1(12.5%) endometrial carcinoma with squamous differentiation and 1 with had pleomorphic sarcoma who was a diabetic (8.3%). 2(16.7%) patients with endometrial Ca had diabetes whereas 25% had other comorbidities like hypothyroid (Table 3).

DISCUSSION:

Postmenopausal bleeding should be assed initially with transvaginal ultrasound. Recent evidence suggests that further evaluation is not needed if the ET is <4mm [5, 6]. Fatemeh sarvi et al suggested that Hysteroscopy is a safe and dependable method for assessing and treating lesions associated with (7). Enging korkmazer also suggested that the combination of a hysteroscopic guided direct biopsy could be the gold standard for endometrial assessment (8). In our study the mean age at presentation of post-menopausal complaints was 54.94 (40-70yrs). This was in accordance with the study done by Astha ubeja et al with a mean age of 54.51 years. Study done on 226 postmenopausal women by Lidor et al had patients of 40-81 years of age with a mean age of 56 years (9,10).

In this study, PMB was commonly found in multiparous women and was associated with risk factors such as diabetes (25%), and hypertension (16.7%); and other comorbidities like hypothyroid, obesity (16.7%). These findings were similar to those of Kothapally, Nirupama et al. [11,12]

Endometrial polyp was seen in 10.4 % cases. Domingues Ap et al [13] in his study discovered that the use of HRT or the presence of other risk factors for cancer, such as hypertension or diabetes, had no effect on the risk of a pre-malignant or malignant lesion in a polyp. In our study 8.3% of diabetic women and 25% of hypertensive patient had endometrial polyp.

It was observed that only 8.3% had endometroid carcinoma and 2.1% pleomorphic carcinoma. However cervical cancer was not observed which was contradictory with Astha ubeja where the cervical carcinoma accounted for 64% of case.[7]

Because endometrial neoplasia is related with a wide range of biological behaviour, demographic data, and clinical risk factors, we won't be able to differentiate the entire spectrum with our sample size. Clinical factors play an important role in predicting the diagnosis of EC, and they should be taken into account when calculating risk and formulating management programmes. Recommendations for re-visit in postmenopausal women with new or recurring bleeding symptoms should be made.

CONCLUSION:

As the incidence of malignancy is increasing, any bleeding in the postmenopausal period must be evaluated with the line of malignancy unless proven otherwise . Comorbidities like hypertension, diabetes mellitus, obesity, and other patient characteristics to be considered. Women with endometrial thickness more than 4 mm or a histopathology that shows a proliferative pattern at the initial assessment are at risk of developing cancer. Though the primary goal of evaluating cases of postmenopausal bleeding was to rule out premalignant and malignant endometrial lesions, most cases had benign causes. Thus postmenopausal bleeding is a symptom of a variety of etiologies and is not always caused by cancer. As a result, careful histologic examination is required to identify benign lesions.

Limitation:

Because the study was conducted at a specific time that included the COVID 19 pandemic, the number of participants was limited. And this could have influenced the analysis

Tables:

Table 1: Distribution of patient's demographics and clinical features

Variables	Frequency (n=48)	Percentage (%)
Age group (years)		
40 to 50	13	27.1%
51 to 60	25	52.1%
61 to 70	10	20.8%
Age		-
Mean±SD	54.94±6.82	
Median	55.50	
Min-Max	40-70	
Socioeconomic status		
Upper	5	10.4%
Upper middle	10	20.8%
Lower middle	16	33.3%
Lower	17	35.4%
Comorbidities		
Diabetes mellitus (DM)	12	25%
Hypertension (HTN)	8	16.7%
DM+HTN	5	10.4%
Others	8	16.7%
NIL	15	31.3%
Menopause (Years)		-
Mean (SD)	7.52±6.56	
Median	5.00	
Min-Max	1-24	
Endometrial thickness		-
Mean (SD)	10.19±7.3	
Median	7.00	
Min-Max	3-36	
Complications		
Bleeding	34	71%
Spotting	18	37.5%
Abdomen pain	2	4%

Table 2: Histopathological findings

Histopathological findings	Frequency	Percentage
Irregular Shedding	8	16.70%
Disordered proliferation	16	33.0%
Endometrial polyp	5	10.40%
Endometrial atrophy	2	4.20%
Endometrial hyperplasia	6	8.30%
Endometrial carcinoma	6	12.60%
Sqamous metaplasia with atypia	1	2.10%
Cervical erosion	5	10.50%
Chronic papillary cervicitis	4	8.40%
Squamous metaplasia of cervix	3	6.30%

Table 3: Correlation of Histopathological findings with different factors

	Irregular Shedding (8)	Disordered proliferation (16)	Endometrial polyp (5)	Endometrial atrophy (2)	Endometrial hyperplasia	Endometrial carcinoma (6)	Sqamous metaplasia with atypia (1)	Cervical erosion (5)	Chronic papillary cervicitis (4)	Squamous metaplasia of cervix (3)

Age correlation										
40-50years	30.8%	46.2%	0	0	15.4%	7.7%	0	0	15.4	0
51- 60 years	16%	24%	16%	4%	8%	8%	4%	20%	8.0%	12.0%
61-70yrs	0	40%	10%	10%	1	10%	0	0	0	0
Socioeconomic status										
Upper	0	40%	20.0%	20%	0	1	0	0	0	0
Upper middle	10%	10%	30.0%	0	20%	0	10%	20%	0	20%
Lower Middle	18.8%	25%	6.3%	6.3%	0	18%	0	18.8%	6.3%	6.3%
Lower	23.5%	52.9%	0	0	11.8%	11.8%	0	0	17.6%	0
Complications										
Bleeding	18.2%	27.3%	9.1%	6.1%	12.1	6.1%	0	6.1%	9.1%	3%
Spotting	15.4%	46.2%	7.7%	0	0	15.4%	7.7%	23.1%	7.7%	15.4%
Abdomen pain	0	50%	50%	0	0	0	0	0	0	0
Comorbidities										
DM	25%	16.7%	8.3%	8.3%	8.3%	16.7%	0	0	25%	0
Hypertension	25%	25%	25%	0	0	0	12.5%	12.2%	0	25%
DM+HTN	0	60%	0	0	20%	0	0	0	0	0
Others	25%	25%	12.5%	0	12.5%	25%	0	12.5%	12.5%	12.5%
NIL	6.7	46%	6.7%	6.7	6.7%	1	0	20%	0	0

REFERENCES:

1. Research on the menopause in the 1990s. Report of a who scientific group. World Health Organ Tech Rep Ser 1996;866:1-107
2. Rossouw JE, Anderson GL, Prentice RL. Risks and benefits of estrogen plus progestin in Healthy postmenopausal women: principal results from the Women's Health Initiative randomized controlled trial. JAMA. 2002;288:321.
3. Giannella L, Mfuta K, Setti T, Cerami LB, Bergamini E, Boselli F. A risk-scoring model for the prediction of endometrial cancer among symptomatic postmenopausal women with endometrial thickness > 4 mm. Biomed Res Int 2014;2014: 130569. doi:10.1155/2014/130569.
4. Goldstein RB, Bree RL, Benson CB, Benacerraf BR, Bloss JD, Carlos R, et al. Evaluation of the woman with postmenopausal bleeding: Society of radiologists in ultrasound-sponsored consensus conference statement. J Ultrasound Med 2001;20:1025-36
5. Karlsson B, Gransberg S, Wikland M, Ylo¨stalo P, Torvid K, Marsal K, et al. Transvaginal ultrasonography of the endometrium in women with postmenopausal bleeding – A Nordic multicenter study. Am J Obstet Gynecol 1995;172:1488-94.
6. Smith-Bindman R, Kerlikowske K, Feldstein VA, Subak L, Scheidler J, Segal M, et al. Endovaginal ultrasound to exclude endometrial cancer and other endometrial abnormalities. JAMA 1998;280:1510-7.
7. Sarvi, Fatemeh & Alleyassin, Ashraf & Aghahosseini, Marzieh & Marzieh, Ghasemi & Gity, Sima. (2016). Hysteroscopy: A necessary method for detecting uterine pathologies in post-menopausal women with abnormal uterine bleeding or increased endometrial thickness. Journal of Turkish Society of Obstetric and Gynecology. 13. 183-188. 10.4274/tjod.66674.
8. Korkmazer E, Solak N, Üstünyurt E. Hysteroscopic assessment of postmenopausal endometrial thickening. Prz Menopauzalny. 2014 Dec;13(6):330-3.
9. Ubeja A, Singh A. Clinicopathological evaluation of postmenopausal bleeding in rural hospital set up. Int J Reprod Contracept Obstet Gynecol 2017;6:3556-9
10. Lidor A, Ismajovich B, Confino E, David MP. Histopathological findings in 226 women with postmenopausal uterine bleeding. Acta Obstet Gynecol Scand. 1986;65:41-3.
11. Kothapally K, Bhashyakarla U. Postmenopausal bleeding: Clinicopathologic study in a teaching hospital of Andhra Pradesh. Int J Reprod Contracept Obstet Gynecol 2013;2:344-8.
12. Nirupama V, Suneetha Y, Prabha Devi K. Post menopausal bleeding: An analytic study of 100 cases. Int J Sci Res 2015;4:2319.
13. Domingues AP, Lopes H, Dias I, De Oliveira CF. Endometrial polyps in postmenopausal women. Acta Obstet Gynecol Scand. 2009;88(5):618-20.