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Pattern of Presentation and Associated Morbidities of Women Presenting with Postmenopausal Bleeding

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Abstract

Background: Postmenopausal bleeding (PMB) is caused mainly by benign disorders; however it is sometimes caused by endometrial cancer. **Aim:** We here attempted to determine what conditions account for PMB in an outpatient clinic of a University hospital in London. **Methodology:** Study subjects consisted of 179 patients with PMB who were referred to us from July to December 2019. Sociodemographic data including patient's age, risk factors, diagnosis and management were reviewed. Underlying conditions where determined. **Results:** Of 179 subjects, the following findings were made: 1) Age 59.63 ± 8.3 (mean and standard deviation). 2) Parity; multiparity, 57.0% (mean ± 1.67). 3) First episode of PMB, 77.1%. 4) The most frequently observed risk factor; obesity 34.6%. 5) The following accounted for PMB (diagnosis in order of incidence rate); genital atrophy 37.4%, submucosal fibroid 28.5%, endometrial polyp 20.7%, endometrial hyperplasia 6.7%, and endometrial cancer 5.6%. All patients were treated appropriately. We did not determine the prognosis of patients with endometrial cancer. **Conclusion:** Although the incidence of rate among women with PMB has already been reported, its reconfirmation in a single facility is important for making policies in the treatment of PMB.

Keywords

Endometrial Cancer, Postmenopausal Bleeding

1. Introduction

Vaginal bleeding after the menopause is a concerning health issue in postmeno-

pausal women [1]. Postmenopausal bleeding (PMB) is defined as any bleeding from the female genital tract after after the menopause [2] [3] [4]. The source of bleeding is commonly the uterus but may also be from the cervix, vagina, vulva or related to pathologies of the ovaries and tubes.

Postmenopausal bleeding accounts for about 5% of Gynaecological referrals [4]. In the majority, the cause is benign but may also indicate a sinister pathology including endometrial cancer. Endometrial cancer is diagnosed in 3% - 10% of women presenting with PMB [2] [3] [4]. Investigating women with postmenopausal bleeding is good clinical practice because endometrial cancer is the most common gynaecological malignancy in developed countries; long term survival depends on early diagnosis and treatment [5].

Causes of PMB include genital tract atrophy, endometrial hyperplasia, endometrial polyps, endometrial cancer, cervical pathologies including cervical cancer, hormone replacement therapy, ovarian and tubal pathologies [6]-[14]. By far the commonest cause is genital tract atrophy, although endometrial cancer is the most serious differential diagnosis and should be excluded [7] [8]. At-risk women for endometrial cancer are nulliparous women, advanced age, obesity, diabetes and hypertension, systemic exogenous estrogen therapy, tamoxifen, Lynch syndrome and late menopause [2] [7].

We here attempted to determine what conditions account for PMB in an outpatient clinic of a University hospital in London.

2. Subjects and Methods

We retrieved retrospective electronic data of consecutive patients managed for PMB from July 2019 to December 2019. Anonymised sociodemographic data including patient's age, risk factors, diagnosis and management were reviewed. Data were entered into an excel spreadsheet and statistical analyses performed using the SPSS software package, version 21 (IBM-SPSS Chicago, IL, USA).

Approval was obtained from the research and innovation directorate of the University Hospital.

3. Results

Table 1 shows the sociodemographic distribution of the study population. The mean age was 59.63 ± 8.3 years. A little over half of the study subjects where Caucasians 52.5% (94). More than half were multiparous 57.0% (102) with a mean parity of 1.81 ± 1.67 (mean and standard deviation).

Clinical presentation and risk factors are represented in Table 2. Majority of the patients 77.1% (138) were referred for the first episode of PMB. The most common risk factor was obesity 34.6% (62).

Table 3 shows the causes of PMB. The diagnosis in order of incidence rate); genital atrophy 37.4%, submucosal fibroid 28.5%, endometrial polyp 20.7%, endometrial hyperplasia 6.7%, and endometrial cancer 5.6%. There was significant association between postmenopausal bleeding with genital atrophy and endo-

Table 1. Sociodemographic characteristics.

Parameter		Frequency (%) N = 179
Age (years)	<50	8 (4.5)
	50 - 59	98 (54.7)
	60 - 69	45 (25.1)
	70 - 79	23 (12.8)
	≥80	5 (2.8)
Race	Asian	28 (15.6)
	Black	57 (31.8)
	Caucasian	94 (52.5)
Parity	Nulliparous	57 (31.8)
	Primipara	20 (11.2)
	Multipara	102 (57)

Table 2. Clinical presentation and risk factors of postmenopausal bleeding.

Variable		Frequency (%)
Presentation	Primary	138 (77.1)
	Secondary	41 (22.9)
Risk factors for PMB	Smoking	2 (1.1)
	Family history of endometrial cancer	5 (2.8)
	Hypertension	36 (20.1)
	Obesity	62 (34.6)
	Diabetes	26 (14.5)
	Adenomyosis/endometriosis	7 (3.9)
	Hormone replacement therapy	20 (11.2)

Table 3. Aetiology, and treatment of post-menopausal bleeding.

	Variable	Frequency (%)	p-value
Pathology	Atrophic endometritis and vaginitis	67 (37.4)	0.004
	Endometrial cancer	10 (5.6)	1.000
	Endometrial hyperplasia	12 (6.7)	0.007
	Polyp	37 (20.7)	0.208
	Fibroid	51 (28.5)	0.544
	Cancer of the cervix	2 (1.1)	0.204
Treatment			
	Oestrogen cream	32 (17.9)	
	Mirena/Norethisterone	6 (3.4)	
	TAH/BSO	11 (6.1)	
	Polypectomy	37 (20.7)	
	TCRF (Transcervical resection of fibroid)	11 (6.2)	
	None	70 (39.1)	

metrial hyperplasia ($p < 0.05$).

In terms of treatment, modalities of treatment include polypectomy, estrogen cream, progestin, but 6.1% of the subjects underwent total abdominal hysterectomy and bilateral oophorectomy (TAH/BSO). The rest were managed expectantly.

4. Discussion

Postmenopausal bleeding (PMB) could present as an ominous sign of an endometrial pathology especially cancer, hence the aphorism "beware of the weeping womb" [10]. It accounts for about 5% of gynaecological referrals and estimated to affect 7% - 15% of postmenopausal women [10] [11].

In developed countries, the lifetime risk of developing endometrial cancer is 1.1% while the lifetime risk of dying from the disease is 0.4% [14]. In this study, 5.6% of the subjects had endometrial cancer. This is similar to incidence rate reported from similar studies [3]-[12]. Postmenopausal status is a major risk factor for endometrial cancer [10] [13]. With increasing life expectancy, women now live about a third of their lifespan in menopause [15]. Although PMB is not synonymous with endometrial cancer, over 90% of women diagnosed with endometrial cancer had vaginal bleeding [9] [12]. Similarly, we found the mean age of the subjects to be 59 years with 2.8% of them in their 80s. Obesity is an independent risk factor for endometrial cancer and hyperplasia, medical conditions including diabetes and hypertension are prevalent in obese women [4] [13]. This study showed that a little over a third 34.6% of our patients were obese and 20.1% and 14.5% respectively had hypertension and diabetes.

Management of postmenopausal bleeding is individualized depending on the diagnosis and individual patient characteristics and preferences. In our series, referred patients were seen through the 2-week wait pathway. These included patients with endometrial thickness of more than 5 mm, recurrent PMB or co-existing endometrial pathologies. All the patients had pelvic ultrasound scan. The sensitivity and specificity of TVUS in detecting endometrial pathologies have been investigated in different studies and reported to range between 97% - 98% and 81% - 95% respectively [12]. Diagnostic hysteroscopy and biopsy either in the outpatient setting or under general anaesthetic were done for all the patients meeting the inclusion criteria. Studies have shown hysteroscopy to be reliable and safe in the evaluation of endometrial lesion, it also affords the operator the chance to take directed biopsies and can be employed for "see and treat" [1].

The most common cause of postmenopausal bleeding in this study was atrophic endometritis and vaginitis in 37.4% of cases while uterine fibroid, endometrial polyp, endometrial hyperplasia and endometrial cancer were reported in 28.5%, 20.7%, 6.7% and 5.6% respectively. This is similar to findings reported in studies [1] [4] [7] [10]. Majority of the patients where managed conservatively. Patients with endometrial cancer were referred to oncology, oestrogen creams were used in the treatment of atrophic vaginitis and polypectomy for polyps.

About 39.1% of the patients were either managed expectantly or declined any medical treatment.

In conclusion, endometrial cancer continues to be diagnosed in women with PMB. This reconfirmation in a single facility is important for making policies in the treatment of PMB. One major limitation of this study is that prognosis for patients managed for endometrial cancer was not explored.

Conflicts of Interest

We declare no conflict of interest.

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