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Gynaecological Disorders among Postmenopausal Women Admitted in a Tertiary Care Hospital

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ABSTRACT

Background: Postmenopausal women face a rising burden of gynaecological illness as populations age. Pelvic organ prolapse, genital malignancy, urinary tract disorders and postmenopausal bleeding are frequent reasons for care, yet many women present late. Most available evidence comes from community surveys or single conditions and hospital data from Bangladesh are limited. This study aimed to describe the pattern of gynaecological disorders, presenting features and associated medical conditions among postmenopausal women admitted to a tertiary care hospital. **Methods & Materials:** This cross-sectional observational study was conducted in the Department of Obstetrics and Gynaecology, Sir Salimullah Medical College Mitford Hospital, Dhaka, Bangladesh, from June 2023 to July 2024. A total of 500 postmenopausal women were included. Demographic and menopausal characteristics, presenting complaints, diagnoses, comorbidities and medication use were recorded and analysed using SPSS version 25.0. **Results:** The mean age was 58.4 ± 6.1 years and the mean age at menopause was 48.3 ± 3.7 years. The commonest complaint was a feeling of something coming down per vaginum (35.2%), followed by postmenopausal bleeding (23.6%). More than half of the women (54.0%) had symptoms for over one year. Pelvic organ prolapse was the leading diagnosis (37.2%), followed by genital malignancy (18.4%) and urinary tract infection (13.6%). Hypertension (39.6%), anaemia (28.4%) and diabetes mellitus (24.8%) were the most frequent associated conditions, while 19.2% had no comorbidity. **Conclusion:** Prolapse, malignancy and urinary tract disorders dominate gynaecological admissions among postmenopausal women, who often present after prolonged symptoms and carry substantial medical comorbidity. Early detection, timely referral and integrated care are needed.

Keywords: *Postmenopausal women; Pelvic organ prolapse; Postmenopausal bleeding; Genital malignancy.*

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INTRODUCTION

Menopause marks a permanent decline in ovarian function and is followed by many years of estrogen deficiency. As life expectancy rises, postmenopausal women form a growing share of patients in gynaecological services. Women aged over 50 years carry the largest global burden of pelvic organ prolapse, with incidence peaking between 50 and 54 years and again between 65 and 69 years [1]. Gynaecological cancers add to this load, with an estimated 879,476 new cases and 442,821 deaths among postmenopausal women in 2019, uterine cancer being the largest contributor [2]. Disparities between settings remain wide, as cervical cancer mortality in transitioning countries was more than double that of transitioned countries, at 12.4 against 5.2 per 100,000 [3].

The conditions that bring postmenopausal women to gynaecological care are varied. They include pelvic organ prolapse, urogenital infections, benign and malignant genital tract disorders and postmenopausal bleeding and many remain under-recognised [4]. In a community survey from Kerala, about one in seven postmenopausal women (14.1%) reported a gynaecological morbidity, yet only 63.6% of affected women received treatment [4]. National survey data from India showed that 15% of women aged 45 to 59 years had a gynaecological morbidity and only 41% of them sought treatment [5]. Among 327 women aged 60 years and above attending a tertiary hospital in Sri Lanka, uterovaginal prolapse was the leading disorder, recorded in 62.4% [6].

Prolapse deserves particular attention because it develops quietly and is often neglected. Symptomatic prolapse affected 14.8% of 20,008 postmenopausal Chinese women and its occurrence rose with age, body mass index and parity [7]. A population-based study in rural Pakistan reported a prevalence of 10.3% and 78.7% of affected women had never consulted a doctor [8]. In rural Bangladesh, symptomatic prolapse was found in 15.6% of women, with higher odds among older women and those with five or more children [9].

Other presentations carry their own clinical weight. Postmenopausal bleeding is present in about 91% of women with endometrial cancer, although only about 9% of women with the symptom prove to have the disease [10]. Urinary incontinence is common after menopause and a systematic review reported prevalence between 13.6% and 84.4% across studies [11]. Genitourinary syndrome of menopause was diagnosed in 74.0% of 385 postmenopausal women attending a tertiary hospital in Nepal [12].

Most of this evidence comes from community surveys, single conditions or outpatient clinics and it does not describe the full range of disorders that lead to admission. Data from Bangladesh are especially scarce. A hospital-based study of postmenopausal Bangladeshi women examined sexual dysfunction alone and reported a prevalence of 56.9% [13]. A comprehensive account of diagnoses, presenting complaints and coexisting medical illness among admitted postmenopausal women in this setting is lacking. Such information is needed to plan services, anticipate surgical and oncological workload and design screening. Evidence is needed because disease patterns, health-seeking behaviour and access to care differ between populations. This study therefore describes the pattern of gynaecological disorders among postmenopausal women admitted to a tertiary care hospital in Dhaka, Bangladesh.

METHODS & MATERIALS

This cross-sectional observational study was conducted at the Department of Obstetrics and Gynaecology, Sir

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Salimullah Medical College Mitford Hospital, Dhaka, Bangladesh, from June 2023 to July 2024 and included 500 postmenopausal women admitted with gynaecological disorders.

Inclusion criteria

1. Women aged 50 to 70 years
2. Amenorrhoea for at least 12 months
3. Admitted with a gynaecological disorder

Exclusion criteria

1. Premenopausal or perimenopausal status
2. Admission for obstetric or non-gynaecological reasons
3. Critical illness preventing history taking
4. Refusal to participate

Data Collection Procedure

Eligible women were enrolled consecutively at admission after the purpose of the study was explained and written informed consent was obtained. Data were collected by the investigator using a pre-tested, semi-structured questionnaire and a structured data sheet. Demographic details, age at menopause, duration of menopause, presenting complaints and duration of symptoms were recorded through face-to-face interview in the local language. A detailed obstetric and gynaecological history was taken, followed by general, abdominal, speculum and bimanual pelvic examination under the supervision of a consultant. Prolapse was assessed in the lithotomy position with straining and graded clinically. Ultrasonography, urine examination, haemoglobin estimation, blood glucose and other investigations were requested according to the clinical presentation. Where indicated, endometrial sampling, cervical cytology or biopsy and histopathology were performed and the final diagnosis was assigned by the treating consultant after reviewing all findings. Associated medical conditions and current medication use were verified from prescriptions, previous records and patient report. To maintain accuracy and consistency, the same data sheet was used for every participant, questions followed a uniform sequence, entries were cross-checked against the hospital record and incomplete forms were completed before discharge. Diagnostic categories were defined before data collection began. Each questionnaire carried a code number instead of the participant's name and no names or contact details were entered into the database. Paper forms were kept in a locked cabinet, the electronic file was password protected and access was limited to the research team. Information was used only for research and reported in aggregate form.

Statistical Analysis

Data were analysed using SPSS version 25.0 (IBM Corp., Armonk, NY, USA). Categorical variables, including age group, presenting complaints, diagnoses, associated medical conditions and medication use, were summarised as frequencies and percentages. Continuous variables, such as age, duration of menopause and age at menopause, were expressed as mean and standard deviation. Findings are presented in tables with accompanying text descriptions.

RESULTS

Of the 500 postmenopausal women studied, the mean age was 58.4 years and menopause had occurred at a mean age of 48.3 years. Prolapse sensation and postmenopausal bleeding were the leading complaints and pelvic organ prolapse was the most frequent diagnosis. Hypertension was the commonest associated medical condition.

Table I

Demographic and Menopausal Characteristics of the Study Participants (*n*=500).

Variable	Category	Frequency (n)	Percentage (%)
Age group (years)	50-54	168	33.6
	55-59	132	26.4
	60-64	108	21.6
	65-70	92	18.4
	Mean age ± SD (years)	58.4 ± 6.1	
Duration of menopause (years)	1-5	214	42.8
	6-10	128	25.6
	11-15	96	19.2
	>15	62	12.4
	Mean± SD (years)	8.6 ± 5.4	
Age at menopause (years)	<45	76	15.2
	45-49	246	49.2
	50-54	178	35.6
	Mean± SD (years)	48.3 ± 3.7	

Table I presents the demographic and menopausal characteristics of the participants. The mean age was 58.4 ± 6.1 years and the largest proportion of women (33.6%) were aged 50 to 54 years, followed by those aged 55 to 59 years (26.4%). The mean duration of menopause was 8.6 ± 5.4 years and 42.8% of women had been menopausal for 1 to 5 years. Nearly half of the participants (49.2%) reached menopause between 45 and 49 years and the mean age at menopause was 48.3 ± 3.7 years.

Table II
Presenting Clinical Features and Duration of Symptoms (*n*=500).

Variable	Category	Frequency (n)	Percentage (%)
Presenting complaint	Feeling of something coming down per vaginum	176	35.2
	Postmenopausal bleeding	118	23.6
	Lower urinary tract symptoms	84	16.8
	Vaginal discharge	46	9.2
	Lower abdominal pain or lump	38	7.6
	Vulval itching or growth	24	4.8
	Backache or generalised weakness	14	2.8
Duration of symptoms	<6 months	96	19.2
	6 months to <1 year	134	26.8
	1-3 years	168	33.6
	>3 years	102	20.4

Table II describes the presenting complaints and duration of symptoms. A feeling of something coming down per vaginum was the commonest complaint, reported by 176 women (35.2%), followed by postmenopausal bleeding (23.6%) and lower urinary tract symptoms (16.8%). Vaginal discharge was reported by 9.2%, lower abdominal pain or lump by 7.6%, vulval itching or growth by 4.8% and backache or generalised weakness by 2.8%. Symptoms had lasted 1 to 3 years in 33.6% of women and 6 months to less than one year in 26.8%, while 20.4% reported symptoms for more than 3 years.

Table III
Distribution of Gynaecological Diagnoses Among the Study Participants (*n*=500).

Diagnosis	Frequency (n)	Percentage (%)
Pelvic organ prolapse (including cystocele and rectocele)	186	37.2
Genital malignancy (cervical, ovarian, endometrial and vulvar)	92	18.4
Urinary tract infection	68	13.6
Benign ovarian lesions	44	8.8
Genital tract infection or atrophic vaginitis	40	8.0
Urinary incontinence	34	6.8
Benign causes of postmenopausal bleeding (polyp, atrophy and fibroid)	36	7.2
Total	500	100.0

Table III shows the distribution of gynaecological diagnoses. Pelvic organ prolapse, including cystocele and rectocele, was the most frequent diagnosis (37.2%). Genital malignancy ranked second (18.4%), followed by urinary tract infection (13.6%). Benign ovarian lesions accounted for 8.8% of cases, genital tract infection or atrophic vaginitis for 8.0%, benign causes of postmenopausal bleeding for 7.2% and urinary incontinence for 6.8%.

Table IV
Associated Medical Conditions and Current Medication Use (*n*=500).

Variable	Category	Frequency (n)	Percentage (%)
Associated medical conditions	Hypertension	198	39.6
	Diabetes mellitus	124	24.8
	Anaemia	142	28.4
	Thyroid disorder	48	9.6
	Heart disease	42	8.4
	None	96	19.2
Current medication use	Antihypertensive drugs	186	37.2
	Oral hypoglycaemic agents or insulin	112	22.4
	Iron or haematinic preparations	138	27.6
	Analgesics (NSAIDs)	64	12.8
	No regular medication	88	17.6

NSAIDs: non-steroidal anti-inflammatory drugs. Women could report more than one condition or medication.

Table IV summarises associated medical conditions and current medication use. Hypertension was the most frequent condition (39.6%), followed by anaemia (28.4%) and diabetes mellitus (24.8%). Thyroid disorder and heart disease were present in 9.6% and 8.4% of women, respectively and 19.2% had no associated condition. Antihypertensive drugs were the most commonly used medication (37.2%), followed by iron or haematinic preparations (27.6%) and oral hypoglycaemic agents or insulin (22.4%). Analgesics, mainly non-steroidal anti-inflammatory drugs, were used by 12.8% and 17.6% took no regular medication.

DISCUSSION

This hospital-based study of 500 postmenopausal women found pelvic organ prolapse to be the leading gynaecological diagnosis (37.2%), followed by genital malignancy (18.4%) and urinary tract infection (13.6%). The mean age at menopause was 48.3 years, which closely matches the 48.2 years reported by Ojha et al. at a Nepalese tertiary centre [12] and is about two years later than the 46.3 years recorded by Amin et al. in Bangladeshi women [13].

The predominance of prolapse agrees with other hospital-based reports. Sivalingarajah et al. found uterovaginal prolapse in 62.4% of geriatric women attending a tertiary clinic in Sri Lanka, a higher figure that probably reflects their older sample, with a mean age of 71.2 years [6]. Community estimates are lower. Theertha et al. reported prolapse in only 2.8% of postmenopausal women in Kerala [4], Li et al. found symptomatic prolapse in 14.8% of postmenopausal Chinese women [7] and Jokhio et al. and Akter et al. reported 10.3% and 15.6% in rural Pakistan and rural Bangladesh, respectively [8], [9]. The higher proportion seen here is expected, since women with advanced disease are the ones who reach a hospital bed. Wang et al. concluded that women above 50 years bear the largest worldwide burden of prolapse [1]. Borsamo et al. showed that age of 45 years or more and parity above four carried adjusted odds of 5.33 and 5.2 for prolapse in Ethiopian hospitals [14] and Legan et al. found vitamin D deficiency in 66.0% of postmenopausal women with prolapse against 43.8% of controls [15]. More than half of our women (54.0%) had lived with symptoms for over one year, a delay mirrored by Jokhio et al., who reported that 44.3% of women with prolapse had symptoms for more than five years and most had never sought care [8]. Theertha et al. similarly noted that only 63.6% of affected women received treatment [4].

Genital malignancy accounted for 18.4% of diagnoses, close to the 17.6% of gynaecological admissions attributed to cancer by Nzeribe et al. in a Nigerian tertiary hospital [16] and far above the 0.5% found by Theertha et al. in the community [4]. Postmenopausal bleeding was the presenting complaint in 23.6% of our women and Clarke et al. found that about 9% of women with the symptom have endometrial cancer [10]. Begum and Samal found atrophy in 30.3%, polyps in 5.3%, hyperplasia in 11.8% and carcinoma in 15.8% of 76 women with bleeding [17] and Vijayasingh et al. reported malignant pathology in 17.6% of 91 such women [18]. These proportions lie in the same range as the malignancy and benign bleeding causes recorded here, although the denominators differ.

Urinary problems were also frequent. Lower urinary tract symptoms were the main complaint in 16.8% of women and urinary tract infection was diagnosed in 13.6%, whereas urinary incontinence was recorded in only 6.8%. This is far below the 39.5% reported by Alizadeh et al. in Iranian postmenopausal women [19] and the range of 13.6% to 84.4% summarised by Allafi et al. [11], which derive from unselected women, whereas ours counts only women admitted with incontinence as the main diagnosis. Ojha et al. found that 54.7% of women with genitourinary syndrome of menopause had urinary frequency or urgency [12] and the 8.0% of our patients with genital infection or atrophic vaginitis probably reflects the same estrogen-deficient urogenital tissue.

Hypertension was the commonest coexisting illness (39.6%), followed by anaemia (28.4%) and diabetes mellitus (24.8%) and only 19.2% had no associated condition. Amin et al. documented hypertension in 20.4% and diabetes in 29.6% of postmenopausal Bangladeshi women [13], so our diabetes figure is similar while hypertension is almost twice as frequent. Kamińska et al. found hypertension in 54.3% of women in a study of menopause and cardiovascular risk [20]. Vijayasingh et al. reported hypertension, alone or with diabetes, in 36 of 91 women (39.6%) and both conditions were present in 62.5% of malignant cases against 12.0% of benign cases [18]. Theertha et al. showed that diabetes and thyroid disorders were significantly associated with gynaecological morbidity, with adjusted odds ratios of 2.99 and 4.21 [4]. Admitted postmenopausal women therefore bring a considerable metabolic burden to the gynaecological ward, which is relevant to anaesthetic risk and perioperative planning.

LIMITATIONS & RECOMMENDATIONS

This study has some limitations. It was conducted at a single tertiary centre and included only admitted women, so the findings may not represent community patterns and the cross-sectional design does not permit causal inference. Diagnostic categories were broad and malignancies were not subdivided by site, stage or histology. Larger multicentre studies that include outpatient and community samples are recommended, along with analysis of risk factors such as parity, body mass index and vitamin D status. Health programmes should encourage early reporting of prolapse and postmenopausal bleeding, strengthen cancer screening and ensure that hypertension, diabetes and anaemia are managed before admission or surgery.

CONCLUSION

Pelvic organ prolapse was the leading gynaecological disorder among admitted postmenopausal women, followed by genital malignancy and urinary tract infection. A feeling of something coming down and postmenopausal bleeding were the commonest complaints and more than half of the women had been symptomatic for over a year. Hypertension, anaemia and diabetes mellitus were frequent coexisting conditions. Early recognition of prolapse and postmenopausal bleeding, timely referral, cancer screening and integrated management of comorbid illness should be strengthened to reduce delayed presentation.

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