

ORIGINAL RESEARCH

Aging and women's health: Assessing gynecological disorders in geriatric patients: Observational research

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ABSTRACT

Aim: This study aimed to assess gynecological disorders among geriatric women. **Methods:** A prospective, observational, cross-sectional study was conducted in the Department of Obstetrics and Gynaecology for period June 2022 to June 2023, including 100 women aged >65 years. Ethical clearance was obtained, and informed consent was taken. **Results:** Of the 100 participants, 80% were aged 65-74 years, 65% were from rural areas, and only 20% were literate. The mean age at menopause was 49.11 ± 4.40 years, with a mean duration of 21.14 ± 5.85 years. The most common presenting complaints were postmenopausal bleeding (35%) and something coming out of the vagina (22%). Hypertension was the most frequent comorbidity. Genital tract malignancies (34%) were the most common gynecological disorders, followed by pelvic organ prolapse (25%) and urogenital infections (16%). Cervical cancer was the most prevalent malignancy (32 cases), often diagnosed at an advanced stage. **Conclusion:** Postmenopausal bleeding is the most common presenting complaint in geriatric women. Pelvic organ prolapse and genital malignancies are major causes of hospital admissions, with ovarian and endometrial cancers showing a rising trend. Early detection and improved healthcare access are crucial for better outcomes.

Key words: Geriatric gynaecology, gynaecological pathologies, postmenopausal women

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INTRODUCTION

The term *Geriatrics* was coined in 1909 by Dr. Ignatz Natcher, an Austrian physician. However, the practical concept of geriatric rehabilitation was first developed in 1935 by British doctor Marjory Warren, who was working in the United States. Her efforts led to the integration of elderly patient care into teaching hospitals¹. Many studies from developed nations classify older adults as those aged 65 and above, while others use a lower cutoff of 60 years. In India, where life expectancy is approximately 61 years-compared to 72-82 years in developed countries-the age threshold of 65 years may not be appropriate. Instead, a cutoff of ≥ 60 years is often used in the Indian context².

A major global challenge in the 21st century is the aging population, with the elderly population increasing at a rate of 2.4% per year. This demographic shift is driven by declining birth rates, improved healthcare, better nutrition, and increased longevity. The growing elderly population directly impacts healthcare systems, bringing changes in disease patterns and raising economic, social and

ethical concerns³. In India, the population structure has shifted from a pyramidal shape in the 20th century to a more rectangular one, highlighting the increasing burden of geriatric gynecological conditions. The proportion of individuals aged 60 and above has risen from 5.4% in 1951 to 8.4% in 2011 and is projected to reach 12.5% by 2025⁴. According to the 2011 Census, while India's overall sex ratio remains skewed toward males (940 females per 1,000 males), among the elderly, women outnumber men, with a ratio of 1,022 females per 1,000 males. India currently has over 50.33 million elderly women⁵.

Gynecological disorders in older women differ from those in younger individuals. With aging, women experience vasomotor, urogenital, psychosomatic, psychological, and sexual dysfunction-related symptoms⁶. Urogenital changes increase their susceptibility to various gynecological morbidities, including vulvovaginal inflammation, genital prolapse, postmenopausal bleeding, malignancies, and bladder dysfunction. Aging naturally leads to functional decline and increased vulnerability, ultimately culminating in mortality. In developed

countries, chronological age is a key factor in defining old age, while in developing nations, other socio-cultural factors may be more significant⁷.

The spectrum of gynecological disorders in India differs from that in developed countries due to the absence of systematic screening programs and dedicated geriatric healthcare units. Common age-related gynecological conditions include pelvic organ prolapse, postmenopausal bleeding, malignancies, urinary incontinence, genital tract infections, and vulvovaginal disorders⁸. This study aims to assess the prevalence and types of gynecological disorders among older women and highlight the need for screening programs to facilitate early cancer detection and the establishment of specialized geriatric units to address the unique healthcare needs of this growing population.

MATERIALS & METHODS

This prospective, observational, cross-sectional study was conducted in the Department of Obstetrics and Gynaecology for period June 2022 to June 2023, involving 100 women aged >65 years. Participants were enrolled after providing written informed consent, and ethical clearance was obtained from the Institutional Review Board and Ethics Committee.

Demographic details, including age, education, and marital status, were recorded, along with clinical parameters such as parity, age at menopause, type of menopause and years since menopause. A comprehensive medical history and gynecological complaints were documented. Health-related quality

of life was assessed using the **Menopause Rating Scale (MRS)**. A thorough clinical and gynecological examination was performed, supplemented by routine investigations, including a complete blood count, blood biochemistry, urine analysis, pelvic ultrasound, and Pap smear.

PELVIC ORGAN PROLAPSE (POP) was graded using the **Baden-Walker system** on a scale of 0 to 4:

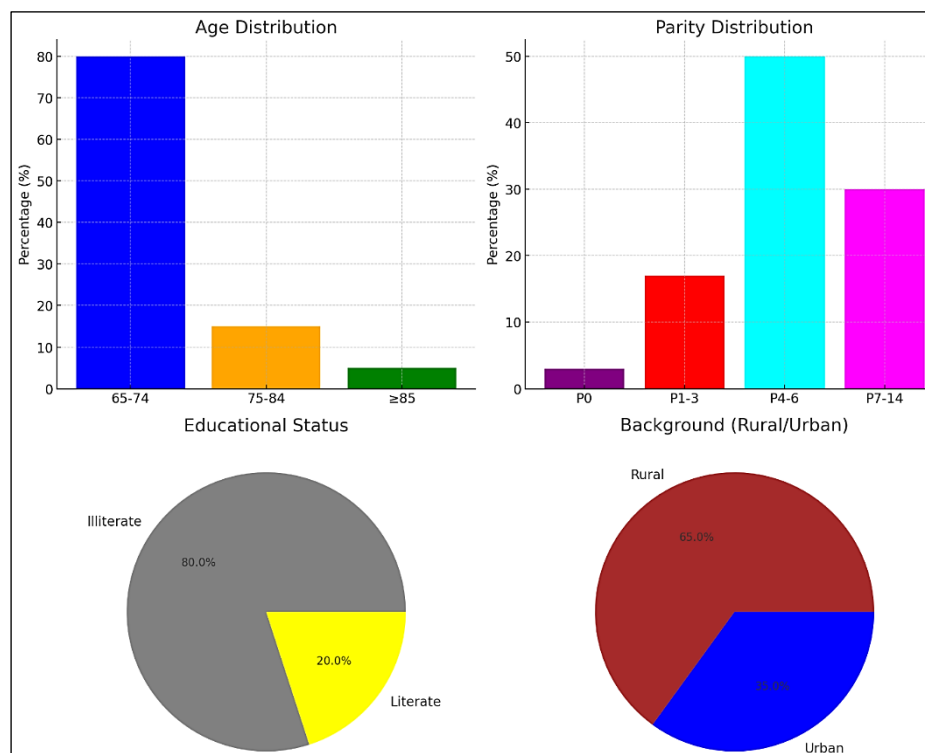
- **GRADE 0:** No prolapse.
- **GRADE 1:** Prolapse halfway to the hymen.
- **GRADE 2:** Prolapse up to the hymen.
- **GRADE 3:** Prolapse extending halfway beyond the hymen.
- **GRADE 4:** Complete prolapse.

The severity of **cystocele, urethrocele, rectocele, and enterocele** was also assessed. **Postmenopausal bleeding (PMB)** was defined as vaginal bleeding occurring 12 months after the spontaneous cessation of menstruation. **Urinary incontinence** was identified as involuntary urine leakage, while **urinary tract infection (UTI)** was diagnosed based on the presence of viable pathogens in urine samples.

STATISTICAL ANALYSIS

The collected data were subjected to statistical analysis using **IBM SPSS version 20.0**. A p -value of <0.05 was considered statistically significant. Qualitative variables were expressed as **mean \pm standard deviation (SD)**, while quantitative variables were presented as **frequencies and percentages**.

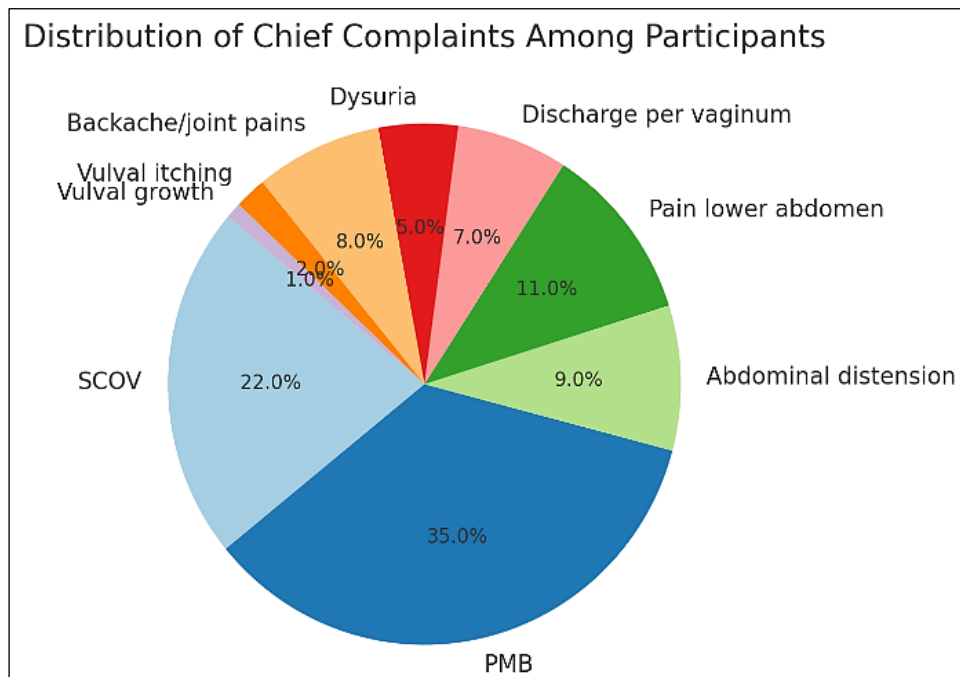
RESULTS



Graph 1: Patient demographics

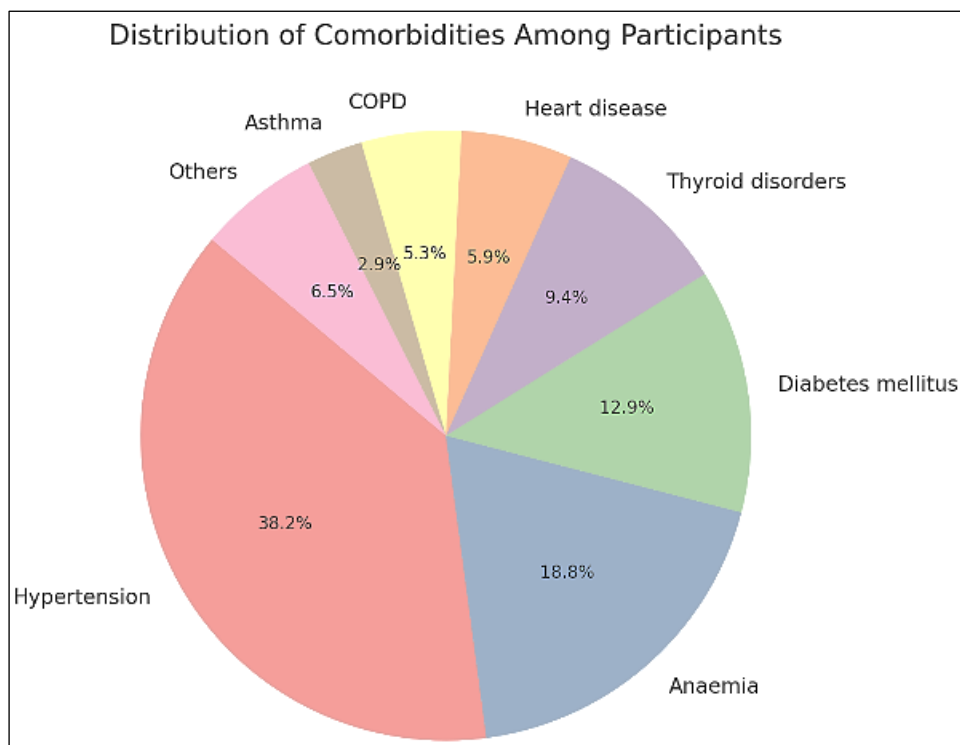
Out of 100 patients, 80% belonged to age group 65-74 years. The study population was 65% from rural and 35% urban areas. Only 20% of the patients were literate. Geriatric women had higher number of

pregnancies. Their mean age at menopause was 49.11 ± 4.40 years and mean duration of menopause was 21.14 ± 5.85 years.



Graph 2: Chief presenting complaint

Something coming out of vagina (SCOV, 22%) and Postmenopausal bleeding (PMB, 35%) were the two major presenting complaints.



Graph 3: Associated co-morbidities

Amongst the co-morbidities, Hypertension was the single most common followed by Anaemia, Diabetes mellitus, Thyroid disorders, heart diseases. Presence of multiple co-morbidities complicates the diagnosis,

treatment and natural course of individual gynaecological health problems in older women.

Table 1: Gynecological disorders

Disorders	Number (n)	%
Pelvic organ prolapse (POP)	25	25
Genital malignancies	34	34
-Carcinoma cervix	16	16
-Carcinoma endometrium	7	7
-Carcinoma ovary	9	9
-Carcinoma vulva	2	2
Benign adnexal masses	7	7
Urogenital infections	16	16
Urinary incontinence	2	2
Endometrial hyperplasia	4	4
Proliferative endometrium	1	1
Atrophic endometrium	1	1
Endometrial polyp	2	2
Cervical polyp	1	1
Vulval papilloma	1	1
Osteoporosis	6	6
Pseudomyxoma peritonei	1	1

The most common gynaecological disorder was genital tract malignancies (34%), followed by POP (25%) and urogenital infections (16%). Of those with genital malignancies, 32 had carcinoma cervix, 18 had carcinoma ovary, 14 had carcinoma endometrium, and 2 had carcinoma vulva.

DISCUSSION

The rising burden of gynecological disorders in India's aging female population and underscores the urgent need for screening, awareness, and better healthcare services for geriatric women. Geriatric gynecology focuses on managing gynecological conditions in postmenopausal women aged 65 years and above. The demographic structure of India, historically pyramidal, is transitioning towards a rectangular model, where most individuals survive to advanced age and experience a more abrupt decline around 85 years⁹. Improved healthcare and increased life expectancy, which currently stands at 68 years in India¹⁰, have contributed to this shift. The proportion of postmenopausal women is increasing more rapidly in developing nations compared to developed ones. In India, the population of women aged 60 years and above grew from 5.4% in 1951 to 7.8% in 2001², and projections indicate it will reach 12.4% by 2026¹¹.

DEMOGRAPHICS AND PATIENT CHARACTERISTICS

In a study of 100 geriatric women, 80% were in the 65-74-year age group. Rural areas accounted for 65% of the study population, while 35% were from urban settings. Only 20% of the patients were literate. Geriatric women had higher parity, and their mean age at menopause was 49.11 ± 4.40 years, with an average duration of 21.14 ± 5.85 years post-menopause, similar to findings in North Indian

women². Another study reported 60% of participants from rural and 40% from urban areas, with 30% literacy rate.

COMMON GYNECOLOGICAL COMPLAINTS POSTMENOPAUSAL BLEEDING (PMB) (35%):

A significant symptom in older women, often signaling underlying malignancy that requires thorough evaluation.

Something coming out of the vagina (SCOV) (22%): Likely indicative of pelvic organ prolapse (POP).

Additional concerns included vasomotor, urogenital, psychosomatic, psychological symptoms, and sexual dysfunction¹³.

GYNECOLOGICAL DISORDERS IN GERIATRIC WOMEN

Genital malignancies (34%) were the most frequently diagnosed conditions: Cervical cancer (32 cases), Ovarian cancer (18 cases), Endometrial cancer (14 cases), Vulvar cancer (2 cases), Pelvic organ prolapse (POP) (25%) was commonly seen, aligning with findings that its prevalence increases with age and is associated with postmenopausal, parous and overweight women¹⁴. Urogenital infections (16%) were also significant contributors to morbidity.

CANCER TRENDS IN AGING WOMEN

Cancer incidence increases significantly after 65 years¹². In Western countries, endometrial cancer is the most frequently diagnosed gynecological malignancy, followed by ovarian cancer³. In contrast, cervical cancer is the leading malignancy among Indian women, followed by ovarian and endometrial cancers, in that order. The lack of routine screening programs results in delayed cervical cancer diagnoses, often in advanced stages.

ROLE OF ESTROGEN DEFICIENCY

Postmenopausal estrogen deficiency impacts pelvic floor support, increasing susceptibility to prolapse and incontinence. Estrogen receptors are widely distributed in pelvic tissues, and studies indicate that hormonal changes accelerate pelvic floor weakening¹⁵.

NEED FOR SCREENING AND EARLY DETECTION

The chronic nature of geriatric illnesses and their heterogeneous presentations make diagnosis and treatment challenging. Studies reveal that 80.80% of elderly gynecological patients have one or more comorbid conditions⁷. Given the increasing gynecological disease burden, there is an urgent need for effective screening programs to enable early detection of malignancies and better healthcare services. However, a lack of sufficient data on gynecological morbidity in older women hinders effective policy planning.

CONCLUSION

Pelvic organ prolapse and genital malignancies remain the leading gynecological conditions requiring hospital admission in women over 60 years. **Postmenopausal bleeding** is the most frequently reported symptom, often signaling underlying malignancy. A rising trend in **ovarian and endometrial cancers** highlights the need for increased vigilance in this age group. Although **cervical cancer** remains the second most common malignancy, late-stage presentation renders many cases inoperable. Therefore, reconsideration of guidelines recommending the discontinuation of screening in older women is crucial. Additionally, addressing the reluctance to undergo **pelvic examinations** through patient education and sensitivity can help **reduce diagnostic delays** and improve outcomes.

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