

A Study Evaluating Gynecological Disorders among Geriatric Women: An Observational StudySneha Bhushan¹, Tanu Kumari², Anupama Sinha³¹Senior Resident, Department of Obstetrics and Gynaecology, JLNMCH, Bhagalpur, Bihar, India²Senior Resident, Department of Obstetrics and Gynaecology, JLNMCH, Bhagalpur, Bihar, India³Associate Professor, HOD, Department of Obstetrics and Gynaecology, JLNMCH, Bhagalpur, Bihar, India

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Abstract**Aim:** The present study was conducted to assess gynecological disorders among geriatric women.**Material & Methods:** The present prospective, observational, cross-sectional study was conducted in the Department of Obstetrics and Gynaecology, JLNMCH, Bhagalpur, Bihar, India over a period of one year which comprised of 200 women aged >65 years old. All subjects were enrolled after they agreed to participate in the study after signing written informed consent.**Results:** Out of 100 patients, 86% belonged to age group 65-74 years. The study population was 70% from rural and 30% urban areas. Only 15% of the patients were literate. Geriatric women had higher number of pregnancies. Their mean age at menopause was 50.15±5.35 years and mean duration of menopause was 20.11±4.64 years. Something coming out of vagina (SCOV, 24%) and Postmenopausal bleeding (PMB, 31%) were the two major presenting complaints. 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. The most common gynaecological disorder was genital tract malignancies (34%), followed by POP (24%) and urogenital infections (17%). Of those with genital malignancies, 32 had carcinoma cervix, 7 had carcinoma ovary, 7 had carcinoma endometrium, and 2 had carcinoma vulva.**Conclusion:** Pelvic organ prolapse and genital malignancy are the major gynaecological causes of hospital admissions in the patients above 60 years. Postmenopausal period is an important part of a woman's life. The geriatric phase is even more important as ageing also becomes a factor.**Keywords:** Geriatric Gynaecology, Gynaecological Pathologies, Postmenopausal Women.This is an Open Access article that uses a funding model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.**Introduction**

The term "Geriatrics" was first introduced by Dr. Ignatz Natcher, an Austrian physician, in the year 1909. In 1935, Dr. Marjory Warren, a British physician, working in the United States, introduced the practical concept of geriatric rehabilitation. Under her leadership, teaching hospitals gradually assumed responsibility for the care of elderly patients. [1] Numerous studies conducted in developed nations have established the categorization of older individuals as those who have surpassed the age of 65, although certain studies employ a threshold of 60 years. The life expectancy in India is reported to be 61 years, which is notably lower when compared to the range of 72 to 82 years observed in developed countries. Hence, it can be argued that the age threshold of 65 years may not be suitable within the Indian context,

leading to the adoption of a lower threshold of 60 years or more. [2]

The ageing of the global population presents a significant challenge in the 21st century. [2] The global elderly demographic is experiencing an annual growth rate of 2.4%. The shift in age demographics can be attributed to several factors, including a decline in birth rates, advancements in healthcare and nutrition, and an overall increase in life expectancy. The impact of the ageing population on healthcare delivery is evident due to its correlation with a novel disease pattern and shifts in economic, social, and ethical considerations. [3] The structure of Indian society, previously characterised by a pyramid-like hierarchy, has transitioned into a rectangular shape in the present era. Consequently, there has been an

increase in the prevalence of morbidity associated with geriatric gynaecological issues. [4] The proportion of individuals aged 60 years and above in India has witnessed a significant increase, rising from 5.4% in 1951 to 8.4% in 2011. Projections indicate that this percentage is expected to further escalate to 12.5% by the year 2025. According to the 2011 census, the sex ratio in India is skewed in favour of males, with a ratio of 940 males per 1000 females for the total population. However, when considering the population of individuals aged sixty years and above, the sex ratio is in favour of elderly women, with a ratio of 1022 females per 1000 males. According to the 2011 census, the population of elderly women in India is recorded at 50.33 million. [5] There are notable distinctions between gynaecological disorders in older women and their younger counterparts. Elderly women commonly encounter a range of physiological and psychological symptoms, including vasomotor symptoms, urogenital issues, psychosomatic manifestations, psychological distress, and sexual dysfunction. The urogenital changes experienced by women render them susceptible to gynaecological morbidities. The elderly female population commonly experiences various gynaecological issues, including vulvovaginal inflammation, genital prolapse, postmenopausal bleeding, malignancy, and changes in bladder function. [6]

Geriatric gynaecology pertains to the study and management of gynaecological conditions that are commonly observed in women who have reached menopause and are 65 years of age or older. The social structure in India, previously characterised by a pyramid-like hierarchy until the 20th century, is currently undergoing a transformation towards a rectangular society. This term refers to a society where the majority of individuals live to an advanced age and subsequently experience a relatively sudden decline in health and mortality within a narrow age range, typically centred around 85 years of age. [7] Many mature women frequently express scepticism regarding the necessity of regular gynaecological examinations following the onset of menopause. The recommended course of action is for individuals to persist in safeguarding their well-being. [8] The occurrence of cancer in the genitalia or breast is not influenced by age. The occurrence of various genital malignancies tends to decline following menopause. The incidence of certain cancers, such as endometrial, vaginal, and vulvar cancers, actually shows an increase. Certain elderly women who experience thinning and degeneration of the vaginal and vulvar tissue due to low oestrogen levels may exhibit reluctance to undergo medical examinations. This hesitation is primarily attributed to the discomfort caused by the manual palpation of the vagina and abdomen or the insertion of a

vaginal speculum, such as the Graves or Pederson speculum. [9] The ageing process is associated with a range of gynaecological disorders, including pelvic organ prolapse, postmenopausal bleeding, gynaecological malignancies, urinary incontinence, genital tract infections, and vulvovaginal disorders. The spectrum of gynaecological disorders in India exhibits variations when compared to those observed in developed countries due to the absence of screening programmes for early detection and a scarcity of specialised geriatric units. [10]

The purpose of the present study is to assess the various types of gynecological problems faced by older women in India and to emphasize the need of promoting screening programmes for early detection and treatment of cancers and establishment of geriatric units to meet the special need of this subset of population

Materials & Methods

The present prospective, observational, cross-sectional study was conducted in the Department Of Obstetrics And Gynaecology, JLNMCB, Bhagalpur, Bihar, India over a period of one year which comprised of 100 women aged >65 years old. All subjects were enrolled after they agreed to participate in the study after signing written informed consent.

Patient demographics such as age, education, marital status, parameters such as parity, age at menopause, type of menopause, years since menopause, medical history and details of all gynecological problems were recorded. Health related quality of life was assessed by using Menopause Rating Scale (MRS). A thorough clinical and gynecological examination was done. Routine investigations such as complete haemogram, blood biochemistry, urine examination, pelvic sonography and pap smear were done.

Pelvic organ prolapsed (POP) was graded as per the Baden-Walker system on a scale of 0 to 4; grade 0 was defined as no prolapse, grade 1 as prolapse halfway to hymen, grade 2 as prolapse upto hymen, grade 3 as prolapse halfway beyond the hymen, and grade 4 complete prolapse. 4 The degree of cystocele, urethrocele, rectocele, and enterocele was also assessed. Postmenopausal bleeding (PMB) was defined as vaginal bleeding 12 months after spontaneous cessation of menstruation. Urinary incontinence was defined as involuntary leakage of urine. Urinary tract infection (UTI) was the presence of viable

Statistical Analysis

Results thus obtained were subjected to statistical analysis P value less than 0.05 was considered significant. The data was analysed by computer

software IBM Statistical Package for Social Sciences (SPSS) version 20.0. The qualitative variables were assessed as mean±standard

deviation. The quantitative variables were expressed as frequencies and percentages.

Results

Table 1: Patient demographics and Distribution of patients according to mean age, mean age at menopause, mean duration of menopause

	Number (n)	%
Age (Years)		
65-74	86	86
75-84	11	11
≥85	3	3
Parity		
P 0	3	3
P 1-3	19	19
P 4-6	48	48
P 7-14	30	30
Educational status		
Illiterate	85	85
Literate	15	15
Background		
Rural	70	70
Urban	30	30
Mean±standard deviation		
Age (years)	65.45±4.76	
Age at menopause	50.15±5.35	
Years since menopause	20.11±4.64	

Out of 100 patients, 86% belonged to age group 65-74 years. The study population was 70% from rural and 30% urban areas. Only 15% of the patients were literate. Geriatric women had higher number of pregnancies. Their mean age at menopause was 50.15±5.35 years and mean duration of menopause was 20.11±4.64 years.

Table 2: Chief presenting complaint

Chief Complaint	Number (n)
SCOV	24
PMB	31
Abdominal distension	8
Pain lower abdomen	10
Discharge per vaginum	8
Dysuria	6
Backache/joint pains	9
Vulval itching	3
Vulval growth	1
Total	100

Something coming out of vagina (SCOV, 24%) and Postmenopausal bleeding (PMB, 31%) were the two major presenting complaints.

Table 3: Associated co-morbidities

Comorbidity	Number (n)
Hypertension	34
Anaemia	14
Diabetes mellitus	10
Thyroid disorders	8
Heart disease	5
COPD	4
Asthma	2
Others	5

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 4: Gynecological disorders

Disorders	Number (n)	%
Pelvic organ prolapse (POP)	24	24
Genital malignancies	32	32
Carcinoma cervix	16	16
Carcinoma endometrium	7	7
Carcinoma ovary	7	7
Carcinoma vulva	2	2
Benign adnexal masses	6	6
Urogenital infections	17	17
Urinary incontinence	3	3
Endometrial hyperplasia	5	5
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 (24%) and urogenital infections (17%). Of those with genital malignancies, 32 had carcinoma cervix, 7 had carcinoma ovary, 7 had carcinoma endometrium, and 2 had carcinoma vulva.

Discussion

The field of geriatric gynaecology focuses on the study and treatment of gynaecological conditions that are commonly observed in women who have reached menopause and are 65 years of age or older. The societal structure in India, historically organised in a pyramidal fashion, has undergone significant changes in the 20th century and is now approaching a rectangular structure. This transition entails a shift towards a society where the majority of individuals live to an advanced age and subsequently experience a relatively sudden decline in health and mortality within a narrow age range, primarily centred around 85.11 years. The advancement in prolonging human lifespan has resulted in a significant expansion of the upper portion of the demographic distribution. [11] The mean life expectancy in India is 68 years. The rate of growth in the population of postmenopausal women is significantly higher in developing countries compared to developed nations. The proportion of women aged 60 years has experienced an increase from 5.4% in 1951 to 7.8% in 2001. [12]

Among a sample of 100 patients, a significant majority of 86% fell within the age range of 65-74 years. A mere 15% of the patient population possessed the ability to read and write. The study revealed that elderly women exhibited a greater incidence of pregnancies. The average age at menopause for the participants was 50.15±5.35 years, while the average duration of menopause

was 20.11±4.64 years. These findings were similar to those observed in women from northern India. [8] The sample consisted of 70% individuals residing in rural areas and 30% individuals residing in urban areas. The literacy rate among the patients was found to be 15%. The study found that there was a higher incidence of pregnancies among women in the geriatric age group. The two primary presenting complaints were identified as Something coming out of vagina (SCOV) with a prevalence rate of 24%, and Postmenopausal bleeding (PMB) with a prevalence rate of 31%. The presence of postmenopausal bleeding (PMB) in older women should be regarded as an indication of an underlying genital cancer and necessitates comprehensive assessment. Geriatric illnesses possess distinctive characteristics, namely chronicity and heterogeneity, as well as a heightened severity and a tendency towards slow or even absent recovery. The necessity for implementing a screening programme aimed at early detection of gynaecological malignancies in order to enhance geriatric healthcare services is evident. [13] However, the lack of sufficient data pertaining to gynaecological morbidity in elderly women poses a challenge to effective strategic planning. Gynaecological disorders among older women exhibit distinct characteristics when compared to their younger counterparts. Thirteen elderly women encounter a range of physiological and psychological symptoms, including vasomotor, urogenital, psychosomatic manifestations, as well as sexual dysfunction. [14] Research findings indicate a notable rise in the prevalence of cancer among individuals aged 65 years and older. Endometrial cancer was the most prevalent genital malignancy in the Western world, with ovarian malignancy following closely behind. [9] In contrast to our population, the most prevalent type

of cancer was carcinoma cervix, followed by ovarian and endometrial cancers, in that specific sequence. The absence of screening programmes contributed to the identification of advanced-stage cervical carcinoma.

Among the comorbidities observed, hypertension emerged as the most prevalent, followed by anaemia, diabetes mellitus, thyroid disorders, and heart diseases. The diagnosis, treatment, and natural progression of gynaecological health issues in older women are further complicated by the presence of multiple co-morbidities. The predominant gynaecological disorder observed in this study was genital tract malignancies, accounting for 34% of cases. This was followed by pelvic organ prolapse (POP) at 24% and urogenital infections at 17%. Among individuals diagnosed with genital malignancies, a total of 32 cases were attributed to carcinoma cervix, 7 cases to carcinoma ovary, 7 cases to carcinoma endometrium, and 2 cases to carcinoma vulva. In their study, Sood et al. (2015) conducted an assessment of gynaecological disorders in geriatric women, focusing on the frequency, diagnosis, and management of these conditions. A total of 224 individuals, all of whom were 60 years of age or older, were admitted within a one-year timeframe. The most frequently reported symptom upon presentation was postmenopausal bleeding, observed in 41.07% of the patient population. A total of 80.80% of the patients in the study exhibited one or more comorbid conditions. The most prevalent diagnosis observed was malignancy, accounting for 54% of cases, followed by uterovaginal prolapse, which constituted 30.35% of diagnoses. [15] In a study conducted by Olsen AL et al, it was demonstrated that the incidence of genital prolapses exhibited an age-specific pattern, with a notable increase observed as individuals advanced in age. Furthermore, the majority of patients affected by this condition were found to be of older age, postmenopausal, having given birth, and exhibiting overweight or obesity. [16] This finding was also observed in our study. Oestrogen receptors exhibit a broad distribution within the anatomical structures comprising the pelvic floor. According to Rizk et al., there is a contention that the absence of oestrogen in postmenopausal women can have detrimental impacts on both the biological ageing process and the mechanisms supporting the pelvic floor. [17]

Conclusion

The most common gynaecological reasons for hospitalisation in adults over the age of 60 are pelvic organ prolapse and genital cancer. A woman's postmenopausal years are significant. As the effects of ageing are taken into account, the geriatric period becomes increasingly crucial. Age-related alterations in the tissue microenvironment

complicate the deployment of therapeutic approaches. Gynaecologists should strive to meet the needs of their patients throughout their lives, not only during the reproductive years. The essential necessity for screening initiatives for postmenopausal women is highlighted by the high prevalence of carcinoma cervix in our setting.

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