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Original Research Article

Clinical Evaluation of Gynecological Disorders in Postmenopausal Women

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Abstract:

Background: With the steady rise in life expectancy, gynecological health in geriatric women has become an increasingly important yet underexplored aspect of public health. Elderly women often face conditions such as prolapse, malignancies, and infections that significantly impair quality of life, but these remain poorly addressed in resource-limited settings.

Objectives: To assess the prevalence and pattern of gynecological disorders among geriatric women, and to identify associated sociodemographic and clinical factors.

Methods: A cross-sectional study was conducted over one year at a tertiary care hospital in Bihar, India, involving 98 women aged ≥60 years presenting with gynecological disorders. Data collection included demographic profiling, clinical history, gynecological examination, and relevant biochemical investigations. Statistical analyses were performed using SPSS version 27.0.

Results: Most participants were aged 60–65 years (40.8%), widowed (36.7%), illiterate (74.4%), and from low-income groups (53.1%). Most had attained menopause between 46–50 years (45.9%), with 91.8% being more than a decade postmenopausal. Uterovaginal prolapse (33.67%) and malignancies (28.57%) were the leading disorders, followed by benign ovarian lesions (16.32%), urinary tract infections (10.20%), genital infections (7.14%), and urinary incontinence (4.08%). Among malignancies, ovarian cancer (10.63%) was most prevalent, while among infections, urinary tract infections dominated (26.25%), particularly lower urinary tract infections (16.25%).

Conclusion: Geriatric women face a double burden of degenerative and malignant gynecological conditions, compounded by infections, with uterovaginal prolapse and ovarian malignancies being predominant. Sociodemographic disadvantages such as illiteracy, widowhood, and low socioeconomic status further exacerbate vulnerability. These findings highlight the urgent need for community-based awareness, early screening, preventive strategies, and integration of geriatric gynecology into primary healthcare to improve the quality of life among elderly women.

Introduction

Geriatrics is the branch of medicine that deals with the health treatment of elderly people. It helps people stay healthy by stopping and treating diseases and disabilities in elderly people. The Greek words "geron," which means "old man," and "iatros," which means "healer," make up the word "geriatrics." Dr. Ignatz Natcher, an Austrian physician, initially introduced the word "Geriatrics" in 1909. However, the practical implementation of geriatric rehabilitation was pioneered in 1935 by Marjory Warren, a British physician operating in the USA, who began to assume care of old patients incrementally in tertiary hospitals. Geriatrics is distinct from medical gerontology, which focuses on the ageing process [2]. Ageing is a natural process. As people get older, their ability to function decreases and their susceptibility increases, which will eventually lead to the end of life. Most gerontological literature defines elderly adults as those over the age of 60. In industrialized civilizations, chronological age is essential for delineating old age, whereas it holds no significance in underdeveloped nations. We have defined elderly people in Bangladesh as those who are 60 years old or older, based on the average retirement age and health conditions, which is 65 years old in more developed nations [3].

Health in geriatric women is a relatively new area of public health, which is worrying given that the global life expectancy is increasing. As we undergo demographic shifts toward an aging population, the proportion of women over 60 is increasing rapidly because of the aging population, and thus age-associated gynecological morbidity is emerging as an important public health concern (pause for a

dramatic effect). These morbidities... are often caused by many factors, including but not limited to aging alone, biological changes associated with menopause, comorbidities (such as hypertension and diabetes), and lifestyle-related factors such as nutrition and physical activity. Evidence shows that almost 30–40% of elderly women report at least one form of gynecological morbidity, with the commonest forms including but not limited to: urogenital atrophy, pelvic organ prolapses, postmenopausal bleeding, urinary incontinence, genital infections, and even malignancies [4].

The systemic effects of aging, particularly estrogen deficiency, are clear, but there is a dearth of evidence documenting the effects of aging on the reproductive system, as there is on the systemic effects of aging on the cardiovascular or renal, or neurological systems. Gynecological issues in older females most often present with vague or atypical symptoms and are either ignored by patients because of a cultural stigma or missed in clinical practice [5]. Effects of conditions such as urinary incontinence and prolapse may have a significant impact on mobility, self-esteem, and social well-being; post-menopausal bleeding is a flag that requires urgent clinical evaluation because it may represent endometrial carcinoma.

There is evidence that geriatric women's gynecological conditions are associated with the menopausal duration, facility-level complexity, comorbidities, and social and cultural restraints to accessing health services. Although not life-threatening, gynecological conditions do create a significant burden on the quality of life and have been identified as "silent suffering" occurring in older women. With more evidence coming forward from rural and lesser resourced settings that account for some of these conditions, limited knowledge, lack of services, delayed diagnoses in cared health systems, and a costly specialty intervention designs a lack of access to care. In this case, the complexity of the conditions means any treatment occurs only once the complications worsen.[6].

Accurate identification and timely diagnosis of gynecological disorders in geriatric women are crucial for both preventive and curative treatment. Clinical evaluation supported by diagnostic interventions like ultrasonography, Pap smears, endometrial biopsies, and urodynamic studies will critically identify morbidities. Evidence from studies further emphasizes the role of screening and health education as vital tools in the community to minimize the hidden burden of morbidity.

Globally, though studies are increasing, there is a continued deficit of data on the local burden of gynecological disorders among older women, especially in low-resource, rural countries such as India, where health systems focus on maternal and child health, inadvertently neglecting geriatric care. Bihar, one of the most populous states in India, exemplifies the "double burden" of disease, seeing communicable and non-communicable conditions, but failing to address geriatric women's health.[7]

Methodology

Study Design: The purpose of this community-based, analytical, cross-sectional study was to determine the prevalence of gynaecological disorders in older women and the factors that are linked to them.

Study Area: The present study was carried out at a tertiary care hospital in Bihar, India.

Study Duration: The research was carried out over the span of one year.

Study Population: The study population comprised geriatric women presenting with gynecological disorders at the gynecology outpatient department.

Sample Size: The study included 98 older women in total. To evaluate the frequency and pattern of gynaecological disorders in this age group, the sample size was found to have adequate statistical power. To determine whether the participants had any asymptomatic or symptomatic conditions affecting their reproductive health, they underwent a thorough evaluation.

Inclusion Criteria

- Geriatric women are defined as women who are 60 or older.
- Patients who have gynecological pathologies that are commonly seen in postmenopausal women.

Exclusion Criteria

- Patients with breast disorders.
- Patients who are on hormone replacement therapy.

Data Collection: The data were collected systematically, comprising demographic details, clinical history, gynecological assessment, and any relevant biochemical investigations. Demographic attributes such as age, marital status, parity, and occupation were recorded for every participant, and for those women who had a clear history of chronic illnesses such as diabetes or hypertension, information about the duration of the illness, treatment (if there was any), and control was also recorded. Biochemical investigations including fasting blood sugar, post-prandial blood sugar, and HBA1C were performed to assess their metabolic status and hemoglobin levels in order to identify any other variables that might indicate a systemic condition. The gynecological assessment was designed so that while dealing with the common presentations of prolapse, infections, malignancies, and post-menopausal issues, there was also the opportunity to make as much use of the

history taking to account for confounding variables to provide a proper assessment of the gynecological morbidity in elderly women.

Statistical Analysis: The Statistical Package for the Social Sciences (version 27.0) for Windows (SSPS Inc., Chicago, Illinois, USA) will be used to do the statistical analysis. The continuous variables will have their mean values calculated. Quantitative observations will be represented by frequencies and percentages. The Chi-Square test with Yates' correction will be employed to examine the categorical variables displayed in the cross-tabulation. T-tests will be utilized for continuous variables. P-values that are less than 0.05 will be seen as statistically significant.

Result

The socio-demographic profile of the participants documented in Table 1 reveals that the majority (40.80%) of the participants are in the age group of 60-65 years, followed by the 66-70 years, 71-75 years, and ≥76 years age groups (25.5%, 20.7%, and 13.0% respectively). Most of the participants (58.2%) are married, followed by widowed (36.7%) and unmarried (5.1%) participants. This reflects the issue of spousal loss in later life. More participants (60.3%) were from urban areas than rural areas (39.7%). Most of the participants were illiterate (74.4%), and only 10.3% educated up to Secondary School Certificate and above. Socio-economic classification revealed that most of the participants had low income (53.1% low income; 40.8% middle income; 6.1.% high income). Regarding personal habits, about half of the participants expressed that they did not have any addictive habits (47.9%), and the rest of the participants expressed that they consume betelnut (36.9%), smoke (8.1%), and use gul (7.1%) as their personal habits. Overall, this profile depicts older women who are mostly urban, illiterate, socio-poor (low income), widowed, and enjoy numerous addictive habits, which are factors that are likely to affect their gynecological health status, in one way or another.

Table 1: Demographical characteristics

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	60–65	40	40.8
	66–70	25	25.5
	71–75	20	20.7
	≥76	13	13
Marital Status	Married	57	58.2
	Unmarried	5	5.1
	Widowed	36	36.7
Residence	Rural	39	39.7
	Urban	59	60.3
Educational Status	Illiterate	73	74.4
	Below SSC	15	15.3
	SSC & above	10	10.3
Socioeconomic Status	Low	52	53.1
	Middle	40	40.8
	High	6	6.1
Personal Habits	Betel Nut	36	36.9
	Gul	7	7.1
	Smoking	8	8.1
	None	47	47.9

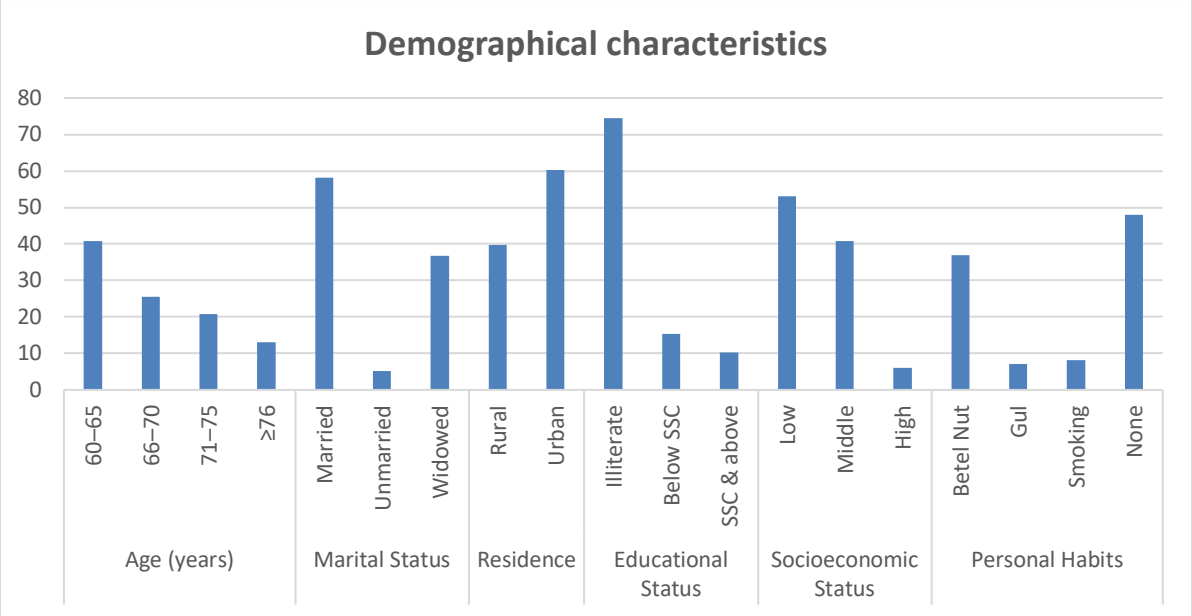

Figure 1: Demographical characteristics

Table 2 displays data on menopausal characteristics. The data indicates that most women experienced the menopause changes between the ages of 46–50 years (45.9%), followed by between 41–45 years (28.5%); only a smaller percent did so beyond 50 years (19.3%) or as early as 35–40 years (6.1%). Therefore, about years since menopause, half of the women (50.0%) completed 11-20 years since menopause, while 41.8% had completed 21-30 years since menopause, and only 8.2% were within 10 years of the onset of menopausal changes. Most importantly, these results suggest that most women had experienced menopause at a physiologically appropriate age and were living in the long-term postmenopausal stage; this is important regarding temporal overload, and since gynecological disorders tend to have higher rates and prevalence in geriatric women.

Table 2: Distribution based on menopause history and parity

Variables	Category	Frequency (n)	Percentage (%)
Age of Menopause (years)	35–40	6	6.1
	41–45	28	28.5
	46–50	45	45.9
	>50	19	19.3
Years Since Menopause	Up to 10	8	8.2
	11–20	49	50
	21–30	41	41.8

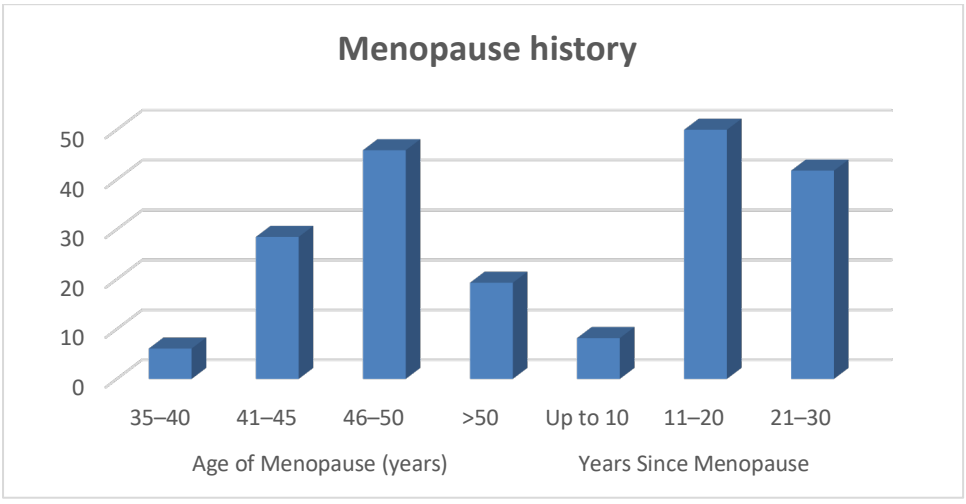

Figure 2: Menopause history and parity

Table 3 indicates the gynecological morbidity among elderly women indicates that uterovaginal prolapse (33.67%) and malignancies (28.57%) were the major gynecological conditions listed with benign ovarian lesions (16.32%) in the middle (where urinary tract infections (10.20%), genital infections (7.14%), and urinary incontinence (4.08%) were considered the least common). Of the conditions considered as 'genital prolapse', 2° uterovaginal prolapse (44.89%) was the most prevalent, followed by 3° prolapse (33.67%), while vault prolapse (9.08%), cystocele (7.14%), and rectocele (5.10%) were less frequent. The information above informs the prevalence and incidence that pelvic organ prolapses and malignancies represent, but the subtypes of second and third degree prolapse were much more common than the others. These findings reinforce the burden of pelvic floor dysfunction, the problem of second-degree and third-degree prolapse, and the method of early detection followed by managing the pelvic floor dysfunction issues in elderly women receiving geriatric care.

Table 3: Distribution based on geriatric disorders and genital prolapse

Variables	Frequency (n)	Percentage (%)
Geriatric Disorders		
Uterovaginal Prolapse	33	33.67
Malignancies	28	28.57
Benign Ovarian Lesion	16	16.32
Urinary Tract Infections	10	10.20
Genital Infections	7	7.14
Urinary Incontinence	4	4.08
Types of Genitals Prolapse		
2° Uterovaginal Prolapse	44	44.89
3° Uterovaginal Prolapse	33	33.67
Vault Prolapse	9	9.08
Cystocele	7	7.14
Rectocele	5	5.10

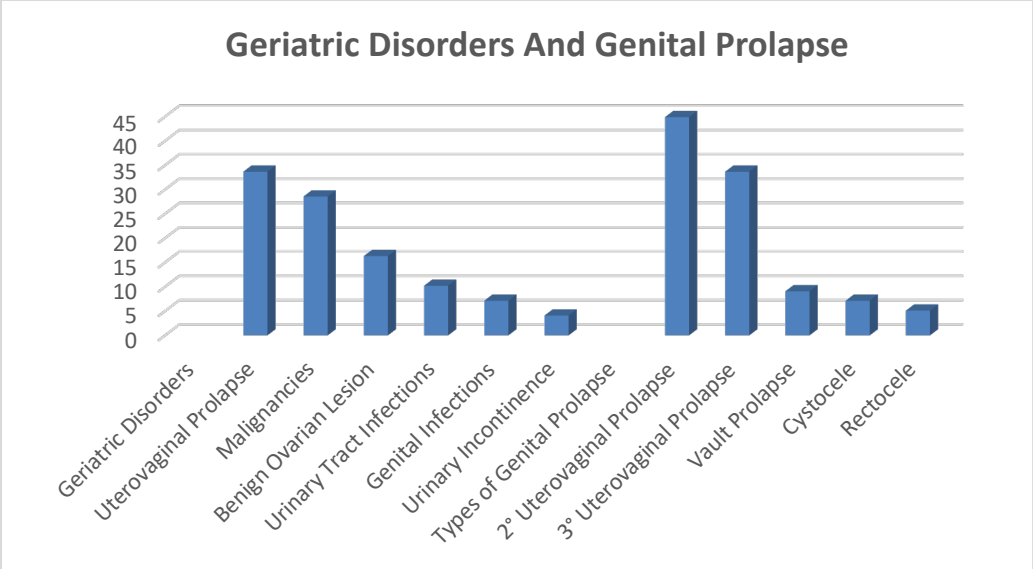

Figure 3: Geriatric Disorders and Genital Prolapse

Table 4 demonstrated that in the described older female population, there were more infections than malignancies, indicating a large burden of infection-related morbidity in this population. The largest subset of infections was urinary tract infections (26.25%), consisting of lower urinary tract infections (16.25%) and asymptomatic bacteriuria (10%). The next largest subset of infections was genital infections at 5% with vaginitis (3.13%) and pelvic inflammatory disease (1.88%). Ovarian cancer (10.63%) was the most common malignancy, followed by cervical cancer (6.87%) and endometrial cancer (3.12%). Almost 20% of the malignancies were reported in the population described. In summary, from a health impact perspective, and therefore burden on overall health, while urogenital infections were responsible for most of the morbidity, malignancies also have an impact on overall health and require diligence in early detection and prevention efforts, and gynaecological care.

Table 4: Distribution based on malignancy and infection

Variables	Frequency (n)	Percentage (%)
Malignancy		
Ovarian Cancer	17	10.63
Cervical Cancer	11	6.87
Endometrial Cancer	5	3.12
Infections		
Urinary Tract Infections	42	26.25
Genital Infections	8	5.00
Types of Urinary Tract Infections		
Lower Urinary Tract Infections	26	16.25
Asymptomatic Bacteriuria	16	10.00
Types of Genital Infections		
Vaginitis	5	3.13
Pelvic Inflammatory Disease	3	1.88

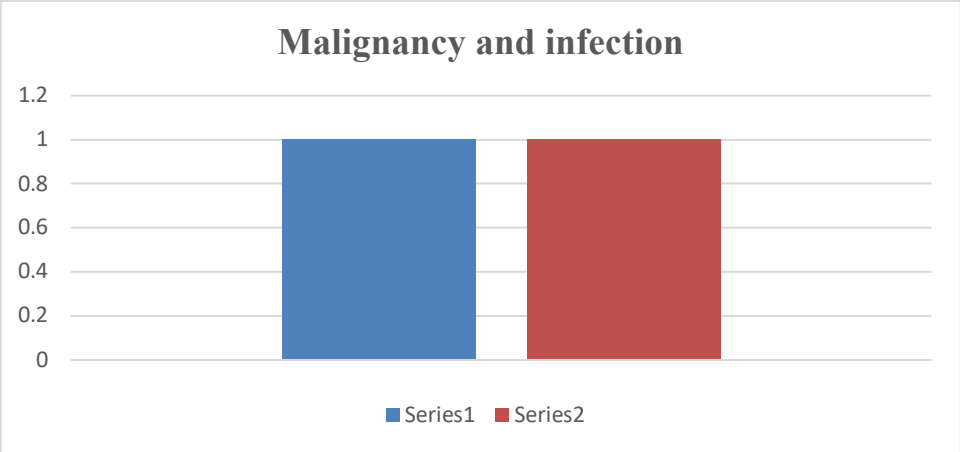

Figure 4: Malignancy and infection

Discussion

This study identified several gynecological morbidities among older women, while some were degenerative disorders, such as uterovaginal prolapse and malignant disease; it also included infectious morbidities, such as urinary tract infections and interventions. Significant sociodemographic characteristics were demonstrated among participants. Most of the participants were older women aged 60-65 years. The participants were more likely to be widowed, illiterate, and from a low socioeconomic group, which potentially limited their health-seeking behaviour, resulting in a delay in diagnosis and consequently increasing their likelihood of suffering from gynecological morbidity. These demographic associations have also been found in Jammu and Kashmir, where both illiteracy and widowhood were beneficial predictors of gynecological morbidity among older women [8].

Menopausal characteristics of participants indicated that most women reached menopause at a physiologically normal age (46-50 years) and were living in the long-term postmenopausal stage (11-30 years). The relation between prolonged menopause and the chronic hypoestrogenic state leading to problems such as pelvic organ prolapse, urogenital atrophy, urinary incontinence, and genital infections was mentioned and reinforced by the high occurrence of uterovaginal prolapse (33.67%), particularly of the second and third degree, in this group of women, which suggests that pelvic floor dysfunction is the prevailing issue. In Bhopal, similar findings were reported, with pelvic organ prolapse reported in 28.4% of their geriatric gynecological population [9], and in a study in Himachal Pradesh, 30.35% of their geriatric female population showed similar findings. These studies support the notion that pelvic floor disorders are consistent among populations of Indian women and geographic areas.[10]

Malignancies were the second most common (28.57%) morbidity in this study. Ovarian cancers were the most common (23.09%), followed by cervical and endometrial cancers. Ovarian cancer was the most common in this study, which is a contrast differing from the Jammu study, where cervical carcinoma was the most common. The results are like those from the Himachal Pradesh study, which found that malignant ovarian cancers were more common than cervical cancers. It is important to note that there are regional variations, and further understanding of our datasets may shed light on the epidemiology of cancer in India. The growing

importance of ovarian cancer in regional areas may be quite relevant. A national study, the UK Million Women Study, provides some supporting evidence of how changes during and after the menopausal period may shape risk factors for cancer and suggests that more studies need to be conducted to help shape prevention strategies using population-based information.[11].

The study documented the prevalence of infections as a secondary morbidity condition - urinary tract infections (26.25%) were more prevalent than malignancies. Of the urinary infections, lower urinary tract (LUT) infections (inc. asymptomatic bacteriuria) were frequent in terms of morbidity for age/life stage and anatomical and immunological characteristics related to hygiene and access to quality health care. The urinary tract infection results were like the Bhopal study (25.5%), which also documented both a high prevalence of infections in general and a high prevalence of lower genital infections compared to the other studies, but morbidity for lower genital infections was less. Similarly, variations in studies highlight community-based studies, e.g., a study from Trivandrum (23.5% overall, urinary symptoms in only 12.3% of women) had the lowest morbidity, which can be assumed to have been due to educational status, urban residency, and high access to quality health care contributing to the diminished morbidity in gynecological problems [12].

The results showed a “double burden” of disease in this cohort: chronic degenerative processes on one side and cancers and infections on the other side. This is a double burden identified in both national and international studies, such as the Australian Longitudinal Study on Women's Health, that defines chronic disease, aging, menopause, and social determinants as the face of women's health outcomes. Similarly, many international research studies continue to demonstrate significant gender bias in medical diagnoses in women, particularly older women, contributing to worsened symptoms, silent suffering, and hospice access at a later point in time [13].

Conclusion

This research has reaffirmed that gynecological diseases are an important and neglected health issue for older women; with uterovaginal prolapse, cancers, and urinary tract infections being the more common morbidities with age and post menopause duration, illiteracy, socio-economic disadvantage, and widowhood increasing vulnerability. The findings convey that while pelvic organ prolapse and ovarian cancers pose a considerable burden of disease, recurrent infections are a serious cause of lack of quality of life, establishing the need for improved health outcomes for older women. The comparison at the regional level has been an illustration of a broad pattern of concern within the Indian context, but it does raise questions around the prevalence rates for cancers and infections within specific regionalisms in suggesting a potential need for community-based strategies that are more congruent with context. Community-based screening, awareness programs, and integration of geriatric gynecology into the primacy of primary health care experience will begin to address both the double burden of degenerative and malignant conditions experienced by older women. In doing so, the outcomes for older women's health will improve, ultimately providing older women with a better quality of life.

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