Spectrum of gynaecological disorders in older Indian women: a hospital-based study

ORIGINAL ARTICLE

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ABSTRACT

Background. Older persons constitute the fastest growing segment of the population in India. Among those aged ≥60 years, females outnumber males. This study assessed the spectrum of gynaecological disorders among older females in a hospital setting.

Methods. 203 females aged 60 to 86 (mean, 65; standard deviation, 5) years who attended our outpatient clinic or were hospitalised between May 2006 and April 2008 were included.

Results. The study population was drawn equally from rural and urban areas. In all, 56 (28%) had pelvic organ prolapse, which was grade 3 in 82%; 50 (25%) had urogenital infections; 46 (23%) had postmenopausal bleeding (PMB), in 28 it had a benign cause and in 18 a malignant aetiology (14 had carcinoma of the cervix).

Conclusion. Pelvic organ prolapse, urogenital infections, and PMB were the major gynaecological problems in these older women. Moreover, PMB was a feature of possible underlying malignancy, of which carcinoma of the cervix was the commonest cause. This emphasises the need for a screening programme for Indian women.

Key words: Genital diseases, female; Pelvic organ prolapse; Postmenopause; Uterine cervical neoplasms

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INTRODUCTION

A major challenge for the world in the 21st century is the ageing of its population. The older population is the one growing fastest in India. The number of people aged ≥60 years has grown from 5.4% in 1951 to 7.5% in 2001 and is projected to become 12.5% in 2025.[1,2] In the age-group of 19 to 59 years, the male-to-female ratio is 1.065:1. However, in the age-group of ≥60 years, females outnumber males, with the ratio being 0.972:1. There were more than 38 million older women in India as per the 2001 census.[1]

Gynaecological disorders in older women differ from those who are younger. Disorders peculiar to ageing are pelvic organ prolapse, urinary incontinence, genital infections, and malignancies. The spectrum of gynaecological disorders in India differ from that in developed countries, as there are no screening programmes for early detection and hardly any dedicated geriatric units. This study assessed the spectrum of gynaecological problems among older women in India.

MATERIALS AND METHODS

Older women who attended our gynaecology outpatient clinic between May 2006 and April 2008 were included. Women with breast disorders were excluded. This study was approved by the ethics committee of our department.

Patient demographics and the medical history were recorded, including age and type of menopause,

and awareness and use of hormone replacement therapy. Routine investigations included a complete haemogram, blood biochemistry, urine examination, Pap smear, pelvic ultrasonography and computed tomography. Resected tissues were examined histopathologically. Details of all gynaecological problems were recorded.

Many studies from developed countries define older persons as those aged ≥65 years, whereas some use a cut off of 60 years.[3] Life expectancy in India is 61 years, as compared to 72 to 82 years in the developed countries. Thus, the cut off of 65 years may not be appropriate in the Indian context and therefore a lower cut off of ≥60 years was used. Economic status was stratified on the basis of family income per month (US$1=Rs44); low was defined as <Rs1000, middle as Rs1000-1999, high as >Rs2000.

Postmenopausal bleeding (PMB) was defined as vaginal bleeding 12 months after spontaneous amenorrhoea. Atrophic vaginitis was inflammatory vaginitis accompanied by purulent discharge with atrophy of external genitalia and loss of vaginal rugae. Urinary incontinence was defined as any involuntary leakage of urine; stress urinary incontinence was associated with increased intra abdominal pressure. Urinary tract infection (UTI) was the presence of viable microorganisms within the urinary tract in cultured urine.

Pelvic organ prolapse (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 the hymen, grade 2 as prolapse to the introitus, grade 3 as prolapse halfway beyond the hymen, and grade 4 and complete prolapse.[4] The degree of cystocele, urethrocele, rectocele, and enterocele was also assessed.

RESULTS

Of the 6826 women presented, 212 (3%) were older women, of whom 9 were not followed up regularly. Thus, 203 older females aged 60 to 86 (mean, 65; standard deviation [SD], 5.3) years were analysed (**Table 1**). The study population was drawn equally from rural and urban areas; 57% of the patients were

Table 1
Patient demographics (n=203)

Patient demographic	No. (%)
Marital status	
Married	136 (67)
Unmarried	1 (0)
Widow	66 (33)
Educational status	
Illiterate	115 (57)
Up to matric	49 (24)
Beyond matric	39 (19)
Economic status	
Low	52 (26)
Middle	140 (69)
High	11 (5)
Background	
Rural	96 (47)
Urban	107 (53)
Parity	
0	7 (3)
1-2	20 (10)
3-4	105 (52)
≥4	71 (35)

illiterate. Their mean age at menopause was 47 (SD, 4; range, 32-59) years; the menopause was natural in 94% and surgical in 6%. None of these women were on hormone replacement therapy; only 9 (4%) were aware of such therapy.

The most common gynaecological disorder was POP (n=56, 28%), followed by urogenital infections (n=50, 25%) and postmenopausal bleeding (n=46, 23%) [**Table 2**]. Of those with POP, 82% were of grade 3, and 13% had associated stress urinary incontinence. Of those with urogenital infections, 27 (54%) had vaginitis, 19 (38%) had a UTI, and 4 (8%) had pelvic inflammatory disease. The causative organism for vaginitis was candida in 12, trichomonas in 6, a mixed (bacterial and candida) infection in 6, and bacterial in 3.

Benign and malignant disorders of the genital tract were noted in 24 (12%) and 35 (17%) of the older women, respectively. Among those with benign disorders, 12 (50%) had a benign ovarian tumour, 7 (29%) had uterine fibroids, and 5 (21%) had a vulval epithelial disorder. Histology of the benign ovarian tumours included: serous cyst adenoma (n=5), mucinous cyst adenoma (n=3), functional ovarian cyst (n=2), fibroma (n=1) and mixed ovarian tumour (n=1). Among those with malignant disorders, 14

Table 2
Spectrum of gynaecological disorders in older women (n=203)

Gynaecological disorder	No. (%)
Pelvic organ prolapse	56 (28)
Urogenital infections	50 (25)
Postmenopausal bleeding*	46 (23)
Carcinoma of the cervix	14 (30)
Atrophic endometrium	9 (20)
Simple hyperplasia without atypia	5 (11)
Proliferative endometrium	4 (9)
Endometrial polyp	4 (9)
Carcinoma of the endometrium	4 (9)
Cervical polyp	2 (4)
Endometritis	2 (4)
Atrophic vaginitis	2 (4)
Malignant disorders of genital tract	35 (17)
Carcinoma of the cervix	14 (40)
Malignant ovarian tumour	14 (40)
Carcinoma of the endometrium	4 (11)
Carcinoma of the fallopian tube	1 (3)
Carcinoma of the vagina	1 (3)
Carcinoma of the vulva	1 (3)
Benign disorders of genital tract	24 (12)
Miscellaneous	10
Vault prolapse	4
Bartholion cyst	1
Detruser instability	1
Vesico vaginal fistula with vault prolapse	1
Postvaginal hysterectomy with secondary haemorrhage	1
High-grade squamous intraepithelial lesion	1
Urethral caruncle	1

* Including 18 patients of carcinoma of the cervix and endometrium

(40%) had carcinoma of the cervix (2 at stage 2 and 12 at stage 3), and 14 (40%) had carcinoma of the ovary (13 at stage 3 and one at stage 4), and 4 (11%) had carcinoma of the endometrium (3 at stage 1 and one at stage 4), and one each had carcinoma of the fallopian tube, the vagina, and the vulva. Histology of the carcinoma of the cervix was reported as squamous (n=13) and papillary squamous (n=1). Histology of the carcinoma of the ovary was reported as: serous cyst adenocarcinoma (n=8), mucinous cyst adenocarcinoma (n=3), serous papillary adenocarcinoma (n=1), granulosa cell tumour (n=1), and poorly differentiated adenocarcinoma (n=1).

Of 46 older women with PMB, 28 (61%) were benign and 18 (39%) malignant (**Table 2**). Carcinoma of the cervix was the commonest malignancy; 3 of the affected patients underwent emergency vaginal packing and subsequent radiotherapy for control of bleeding.

DISCUSSION

Older women from rural background are associated with relatively low literacy rates.[5] In our study, the mean age at menopause was 47 years, which is comparable to that for north Indian women.[6] POP, urogenital infections, and PMB constituted 73% of all gynaecological disorders in older women. 50% of parous women lose pelvic floor support with advancing age.[7] Pelvic floor dysfunction is a major health issue for older women, and the likelihood of undergoing an operation for POP by the age of 80 years was 11%.[8] In all, 82% of the older women with POP were classified as grade 3, because the symptoms forced them to seek medical attention.

Vaginitis and UTI were common urogenital infections, for which candida vaginitis was the commonest cause. In older women, vaginal pH changes owing to lack of oestrogen and predisposes to candida vaginitis. Ineffective voiding and incomplete bladder emptying leads to urinary stasis and colonisation by pathologic bacteria resulting in UTI.[9] UTI was the sole source of infection in 10% of febrile older women.[10]

In our study, 23% of older women had PMB, in whom 30% was due to carcinoma of the cervix. The incidence of PMB incidence was 20% in females aged >65 years in a western series,[11] of which only 1.3% was caused by carcinoma of the cervix.[12] Atrophic endometrium was the commonest histopathological finding in 50% of patients with PMB in a Swedish study,[12] as compared to 20% in ours, whereas adenocarcinoma of the endometrium as a cause was comparable.[12] The low incidence of malignancy as a cause of PMB in Sweden reflects the effectiveness of screening programme against cervical cancer. Prior to the screening programme, 30% of Swedish women with PMB had an underlying malignancy, of which one third were cervical cancers. The scenario depicted in our study resembles that of the Sweden study prior to cervical cancer screening. In our study, 9% of older women with PMB had endometrial carcinoma. The risk of endometrial cancer in women with PMB increases with age from 1% at age 50 years to 25% at age 80 years.[12] Hence, PMB in older women should be considered a sign of underlying genital cancer and warrants thorough evaluation.

In western older women, endometrial carcinoma was the commonest malignancy of the genital tract, followed by ovarian malignancy.[13] This was in contrast to our population, where carcinoma of the cervix and ovary were the common malignancies; endometrial carcinoma ranked third. According to the Indian cancer registry, there is an increasing trend for ovarian and corpus uteri malignancies in the past 2 decades.[14] Most gynaecological malignancies were observed at advanced stages; late detection of carcinoma of the cervix was due to the lack of a screening programme. Uneducated women with poor socioeconomic status coupled with cursory clinical evaluations they undergo at primary health care facilities lead to delays in presentation and diagnosis.

To conclude, POP, urogenital infections and PMB were the major gynaecological problems in older women. PMB is a common feature of underlying gynaecological malignancy in such women. Urgent referral for gynaecological work up is warranted. Carcinoma of the cervix was the commonest cause of PMB. The high incidence of cervical cancer observed in our series, emphasises the urgent need for a national screening programme for Indian women.

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