Menopausal problems of urban postmenopausal women of Hyderabad

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Abstract

Introduction: Increased life expectancy women live an average of two to three decades in postmenopausal period, which is one third of their lives. During this period, as a result of decreased oestrogen they are vulnerable and prone to menopause related health problems.

Aim and objectives: To determine the prevalence of various Menopause related health problems and their relationship with socio-demographic, biological and lifestyle variables.

Material and Methods: This was a cross sectional study undertaken in the urban field practice areas of Osmania Medical College, Hyderabad. A total of 430 post menopausal women were interviewed using predesigned and pre tested questionnaire consisting of socio demographic, biological and lifestyle variables. Menopause related health problems were enumerated using modified menopause rating scale.

Results: The Prevalence of any of the Somatic problems were 77%, any of the psychological Problems were 37.4% and Uro genital problems were 32.1%. There was statistically significant association of age, parity, duration of menopause and lifestyle with any of the short and intermediate health problems.

Conclusions: Menopausal health problems need to be addressed as it poses a major public health problem and are also amenable for preventive strategies.

Keywords: Menopause, Modified Menopause Rating Scale, Short and Intermediate Health Problems, Somatic, Psychological, Uro – Genital.

Introduction

With the improvement of health science and economic development, life expectancy has become longer. According to the world health organization it is estimated that by 2030 there will be 1.2 billion women above the age of 50 years experiencing menopause.[1] Menopause is the permanent cessation of menstruation owing to loss of follicular activity of the ovaries with subsequent hormonal changes. Due to this, a woman's life undergoes transition from reproductive to the non-reproductive stage with declining levels of oestrogen, progesterone and androgens- "an inevitable milestone".

Although menopause is a universal phenomenon, there is a considerable variation among women regarding the age of attaining menopause and the manifestation of menopausal signs and symptom. These are termed together as" Menopausal Syndrome" and classified as short term, intermediate and long term problems.[2] The prevalence of each of these symptoms related to menopause varies across ethnic and socioeconomic groups, their lifestyle and biological variables.[3] These symptoms are insidious in onset and inapparent making this a public health problem by affecting quality of life.

In India very few studies have been carried out to determine the health problems of postmenopausal women in urban areas and most of them are Hospital based. In this regards Post Menopause "An Emerging Issue of women beyond reproductive years" is adding a new dimension to the already challenging health situation with rise in the added health consequences, particularly in Hyderabad where there is dearth of community based studies. This study was taken up with the objective to enumerate prevalence of short and intermediate health problems using modified menopause rating scale and their relationship with socio-demographic, biological and lifestyle variables.

Material and Methods

A cross sectional study was undertaken in urban slums of Hyderabad which were attached to urban health training center of Osmania Medical College. The study population comprised of postmenopausal women aged above 40 years residing in the urban field practice area. Sample size was calculated using the formulae $4PQ/L$,[2] taking the prevalence as 50% (taking various studies where 40-60% was the prevalence of menopausal problems and an average 50% taken)[4-7] and absolute precision 5; the estimated sample size was 400 and to this 10% non response rate added total was rounded to 430. There were 33 underdeveloped and 9 developed slums were attached to this; of this only 5 slums selected by simple random sampling using lottery method. These 5 slums have a population of 13,954 with estimated women >40 yrs as 986.Total 445 women were contacted, of whom 15 were unwilling. On an average 30-35 from each slum were randomly chosen for feasibility. Post menopausal women who had attained natural menopause and age group of 40-70 years residing in urban slum and willing to participate

were included in the study. Women who attained surgical and premature menopause were excluded from the study. Data collection was done from March to June 2017 by visiting houses and interviewing the study subjects using a pre-designed, pre-tested and pre-coded questionnaire, which took 30 minutes for each women by the investigator. They were interviewed about their socio-demographic profile, biological variables, lifestyle/ personal habits and various health problems using modified menopause rating scale (MMRS Scale).[8] This composed of 11 items and was divided into three subscales: Short Term Somatic- Hot flushes, Heart discomfort/palpitation, Sleeping problems and Muscle and Joint problems. Intermediate: a) Psychological-Depressive mood, Irritability, Anxiety and Physical and Mental exhaustion; b) Uro Genital-Sexual problems, Bladder problems and Dryness of the Vagina.

Originally each of the eleven symptoms contained a scoring scale from "0" (no complaints) to "4" (very severe symptoms). The women were asked whether or not they had experienced the 11 menopausal symptoms shown in the Modified Rating Scale in the previous one month (30 days), however it was noted from the pilot study, these women had difficulties in rating the scale themselves. In order to minimize these difficulties, a face-to-face interview was done rather than using self-administered response. Hence, the grading was modified to "present" or "absent" of symptoms. Therefore, this study determined the prevalence of menopausal symptoms and not the severity of the symptoms based on the above three subscales. Institutional ethical committee permission and informed consent of participants was obtained prior to the study. Data was entered and analyzed using Microsoft excel 2010. Frequency, mean $\pm$ standard deviation and chi square was calculated as required.

Results

Socio demographic variables: Mean age of the study participants was 57.7years; about 193 (44.8%) belonged to the age group of 51-60 years. Most of them were illiterates 286 (67%), Primary school education was attained by 10 (2%), Middle school by 23 (5%), High school by 26 (6%), Intermediate by 64 (15%) and Graduate/Post graduate among 21 (5%). As per the occupation majority were housewives 319 (74.3%), unskilled 66 (15.3%), semiskilled 2 (0.5%), skilled 13(3%), clerical/shop/ business 20 (4.7%), semi-professional 10 (2.2%). According to the modified BG Prasads socioeconomic status classification 30 (7%) belonged to upper class, 59(13.7%) belonged to upper middle class, 133(30.9%) belonged to lower middle class, 128(29.8%) belonged to upper lower class and 80(18.6%) belonged to lower class.

Biological variables: Among study participants nulliparous were 19 (4.4%), 1-3 children were borne by 195 (45.4%) and >3 children by 216 (50.2%).Average number of live children were three. Mean age at menarche was 12.10 ± 1.01 years. Duration of menopause was less than 5 years among 108 (25.1%), 5-10 years of duration was found among 113 (26.3%) and greater than 10 years among 209 (48.6%). Mean duration since menopause was 12 ± 7.455 years and mean age at menopause was 45.8 years.

Lifestyle variables: Current consumption of alcohol was found among 95 (22.1%) and former consumption was found among 4 (0.9%) only. Current tobacco users in the form of pan parag, gutkas and zarda was observed among 109 (25.3%). Sedentary type of lifestyle was noted among 266 (61.9%), moderate among 160 (37.2%) and heavy workers among 4 (0.9%).Using the Asians classification for body mass index- there were 27 (6.3%) of them underweight, normal weight 123 (28.6%), overweight were 130 (30.2%) and obese were 150 (34.9%).

Prevalence of short term and intermediate problems as according to modified menopause rating scale was depicted in Table 1 and Figure 1.

Table 1: Distribution of Postmenopausal women according to the Prevalence of Short and Intermediate Problems based on the symptoms/signs adopted from Modified Menopause Rating Scale (MMRS)

Somatic *	Post-menopausal women (N=430)	
	Number	Percent
Hot flushes/night sweats	103	24
Heart discomfort	34	7.9
Sleep problems	97	22.6
Joint and muscular discomfort	314	73
Psychological *		
Depressive	52	12.1
Irritability	87	20.2
Anxiety	50	11.6
Physical and mental exhaustion	78	18.1
Uro genital *		
Loss of sexual desire	15	3.5
Stress incontinence	29	6.7
Urge incontinence	61	14.2

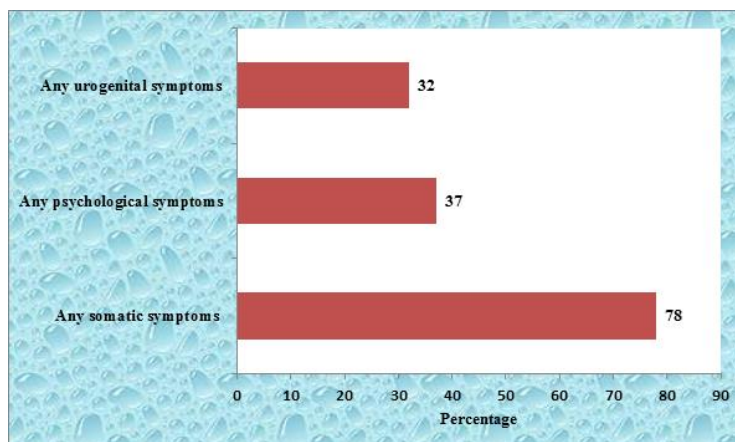| Dryness of vagina	7	1.6

Fig. 1: Prevalence of Short and Intermediate Problems

There was statistically significant association of variables such as age, duration of menopause and lifestyle with any of the somatic problem. (Table 2). Age, parity and lifestyle was statistically significant with any of the psychological problems (Table 3). Urogenital problems were increasing with increased age, increased parity, increased duration of menopause and sedentary lifestyle which was statistically significant. (Table 4). There was no significant association of body mass index and personal habits with any of the health problems in our study.

Table 2: Association between various variables and any of the somatic problems

Variables	Any somatic problems			
Age	Yes (334)	No(96)	Chi-square; df	P value
41-50	85	11		
51-60	142	51	8.931; 2	*0.012*
>60	107	34		
Duration of menopause				
<5 years	93	15	8.363; 2	*0.015*
5-10years	79	34		
>10years	162	47		
Parity				
<=3	173	41	2.464; 1	0.073
>3	161	55		
Lifestyle	Yes (N=334)	No (N=96)		
Sedentary	218	48	12.314; 2	*0.002*
Moderate	115	45		
Heavy	1	3		

Table 3: Association between various variables and any of the Psychological problems

Variables	Any Psychological problems			
Age	Yes (161)	No(269)	Chi-square; df	P value
41-50	49	47		
51-60	67	126	11.718 ; 2	*0.003*
>60	45	96		
Duration of menopause				
<5 years	44	64	3.474; 2	0.176
5-10years	48	65		
>10years	69	140		
Parity				
<=3	96	118	10.008; 1	*0.001*
>3	65	151		
Lifestyle				

Sedentary	93	173	6.177; 2	*0.046*
Moderate	68	92		
Heavy	0	4		

Table 4: Association between various variables and any of the somatic problems

Variables	Any Uro- genital problems			
Age	Yes (138)	No(292)	Chi-square; df	P value
41-50	29	67		
51-60	51	142	7.654; 2	*0.022*
>60	58	83		
Duration of menopause				
<5 years	27	81		
5-10years	30	83	8.345; 2	*0.015*
>10years	81	128		
Parity				
<=3	57	157		
>3	81	135	5.822; 1	*0.010*
Lifestyle				
Sedentary	97	169		
Moderate	40	120	6.243; 2	*0.044*
Heavy	1	3		

Discussion

Our study found majority of them were in the age group of 51-60 years with 67% illiterates and 74.3% house wives. Contrary to our study Manjusha Deotale etal noted (30.57%) women were in the age group of 45-49 years; 37.14% were educated up to primary school, followed by illiterate women (31.14%), about (86.29%) were housewife and only few (13.71%) were employed.[9] Similarly Monika satpathy also found the mean age at menopause as 44.82 among urban women of Odisha.[10]

Present study noted 22.1% alcohol consumption currently and tobacco usage among 25.3%. Their misconception about the intake of alcohol and tobacco was that it relieves body pains and tooth ache. Study by SD Bhardwaj et al in Nagpur noted smokeless tobacco usage among women aged 45-54 years (44.1%) and (60.1%) among women aged 55-64 years.[11] Our participants were more overweight 30.2% and obese 34.9%. Jacqueline etal among Brazilian menopausal women also found (30.8%) as overweight and (35.2%) as obese.[12]

Our study revealed that prevalence of any of the somatic problems to be 77.7%; most common was joint and muscular discomfort (73%) followed by hot flushes (24%). Prevalence of any of psychological problems to be 37.4% with majority being irritable (20.2%). Prevalence of any of the uro genital problems as 32.1% with majority suffering from urge incontinence (14.2%). S. Palacios, V. W. Henderson in their review study found that women in Latin America described that the most prevalent symptoms in the MRS score were hot flushes 68.9%, sleeping disturbances 68.4%, depressive mood 55.2%, and irritability 51.6%.[13] Lt.Col. Geetha in her study among urban Pune found joint and muscular discomfort (86%) and physical and mental exhaustion (81%). More than half of the respondents experienced heart discomfort (68%), irritability (66%), depressive mood (61%) and hot flushes and profuse sweating (58%). (43%) menopausal women experienced sleep problems, (35%) had dryness of vagina and (31%) sexual problems.[14] Borkar etal found high percentage of emotional problems and headache among postmenopausal women of kerala.[15] Contrasting to our study Leena et al found hot flushes 58% and 50% vaginal dryness and irritation among postmenopausal women of Idduki.[16] Study conducted by Shahedur Rehman among Bangladeshi postmenopausal women also found high prevalence of easy fatigue, headache and joint pains.[17] This difference in prevalence of menopause related problems could be explained by varying geographical regions, ethnicity, climate, women's roles and their attitudes regarding the end of the reproductive life and age.

Significant association was found in our study between the menopause related health problems and age, parity, duration of menopause and lifestyle. No association was found with alchol and tobacco consumption and also body mass index. A study by **Gita** D. Mishra and Diana Kuh in their prospective study among British women of age 47-54 years observed no association was evident between somatic and psychological symptom profiles and body mass index, physical activity level, or smoking status.[18] Salini Lisa Cyriac et al could not found significant association of menopause related health problems with age and body mass index.[19] These could be explained by varying dietary habits and lifestyle.

Conclusion and recommendations

The Prevalence of menopause related problems were very high having significant impact on quality of

life. The Most common was the joint and muscular discomfort, irritability and urge incontinence. These have been influenced by parity and their lifestyle in our study which are amenable by primary preventive strategies. Thereby there is a great need to incorporate postmenopausal women in the health programmes.

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