



A STUDY TO ASSESS THE AVERAGE AGE OF MENOPAUSE AND MENOPAUSE ASSOCIATED SYMPTOMS AMONG RURAL WOMEN IN MANGALORE, KARNATAKA

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ABSTRACT

Background: The word menopause literally means cessation of menstrual cycle. It is derived from Greek word 'Meno' or month and 'pauasis' means a pause or cessation. A variety of physiological changes takes place in the body, some of these are the result of cessation of ovarian function and related menopause events while others are a function of the ageing process. This study was done to determine the average age at menopause and to study menopause associated health problem in them.

Materials and Methods: A cross sectional study was conducted in the Rural field practice area of K.S. Hegde medical academy, Natekal from Jan 2013-Dec 2013.

Results: Mean age at menopause was found to be 45.32 with SD of +/-2.79. Muscle and joint pain (39.25%), vasomotor symptoms (21%), urological symptoms (20.5%), vulvovaginal symptoms (19.25%). Hot flashes were experienced more by postmenopausal women (64%) as compared to perimenopausal women (36%).

Conclusion: Menopausal symptoms are either ignored or not spoke of. It is suggested that establishment of menopausal clinic within the current primary health care system can centralize attention to menopausal women and their needs.

Keywords: Menopause, Women Health, Hot flushes, Post menopause

INTRODUCTION

Change is the very essence of life. The two most important physiological changes which occurs in the women's life are- commencement of menstruation at the puberty where her reproductive life starts and other is cessation of menstruation where her reproductive life is over.¹ All the women who live beyond the age of 45-50 years, experience a period of transition from reproductive to non-reproductive stage of life. Thus menopause is said to be universal reproductive phenomenon.²

The word menopause literally means cessation of menstrual cycle. It is derived from Greek word 'Meno' or month and 'pauasis' means a pause or cessation.

The menopause is the time of a women's life when reproductive capacity ceases. Ovaries stop functioning and production of steroid and peptide hormone falls. A variety of physiological changes takes place in the body, some of these are the result of cessation of ovarian function and related menopause events while others are a function of the ageing process.³ Every woman's experience of the menopause is unique; she may experience all of the symptoms or none of them. Some find the transition barely noticeable, while other finds it has life altering.

Menopause although not a disease is associated with annoying physiological changes and varied symptoms like hot flushes, night sweats, urinary and genital changes, dyspareunia, insomnia etc.

Thus it affects the quality of life by being major cause of morbidity and acts as a risk factor for early mortality from subsequent chronic diseases like IHD, Osteoporosis etc¹.

According to WHO, natural menopause takes place between the ages 45 & 55 years for the women worldwide³. It is generally accepted that average age at menopause is about 51 years in industrialized countries. But in developing countries it ranges from 43-49 year.^{3,4}

In an article, "The emergence of menopause in India," Sengupta A, reported that a total of 130 million Indian women are expected to live beyond the menopause into old age by 2015.⁴ Menopause is emerging as an issue owing to rapid globalization, urbanization. Awareness & increased longevity in urban middle aged Indian women, who are evolving as a homogenous group. Improved economic conditions & education may cause the attitude of rural women to be more positive towards menopause. However, most remains oblivious of the short & long term implications of the morbid conditions associated with middle & old age, simply because of lack of awareness and the unavailability or ever increasing cost of the medical & social support systems. Most menopausal women go untreated or use unproven alternative therapies.^{1,4}

The Reproductive and Child Health Program (RCH) "Assumed a life cycle approach" in dealing with the health issues of both men and women and stated that people of all ages need due attention given to their health, rather than concentrating only on women in reproductive ages.

In regard to above, it is important to address all these menopause related problems and apply prophylactic measures so that these women can lead enjoyable & healthy life.

In view of this, a cross sectional study was conducted in a rural area of K S Hegde Medical Academy, Mangalore to assess the different aspects of morbidity variables associated with premenopausal and postmenopausal period of women's life.

OBJECTIVE

The objective of this study was to determine the average age at menopause and to study menopause associated health problem in them

MATERIALS AND METHODS

A cross sectional study was conducted at the Rural field practice area of K.S. Hegde medical academy, Mangalore. All the villages which comes under

field practice area of K.S. Hegde medical academy and PHC Natekal were taken. All the women of age group of 40-60 years who are the residents of the selected villages were considered as study population. The study was conducted for one year from Jan 2013-Dec 2013. Sample size was calculated by doing a pilot study on 30 women and prevalence of symptoms found was 56%, considering the prevalence of menopausal symptoms around 56%. So an estimate of 56% of those women between the age group of 40-60 with an allowable error of 5% and confidence level of 95%, the sample size for the study comes about 400. Systemic random sampling was used to select the study sample. House to house visits were made to collect the data in a pretested semi-structured questionnaire by the interview method which includes: family composition, menstrual history, presenting health problem, past history, family history, personal history and dietary history. A female interns / ANM have been accompanied for the interview. The interview was conducted only after taking the written consent from the women. Interview was done in a private setting so that the confidentiality of study was ensured. Interview was conducted in the local language Kannada / Tulu and the full confidentiality of the study was assured.

Institutional Ethical Committee approval was obtained by the K S Hegde Medical Academy.

Women in the age group of 40-60 years willing to participate in the study and had given written consent were included in the study.

Women who underwent hysterectomy and had psychiatric disorders were excluded from the study. Women who were not willing to participate in the study were also excluded.

The WHO scientific Group has recommended the following definitions.³

Perimenopause: It includes the period immediately prior to the menopause (when endocrinological, biological and clinical features approaching menopause commence) and the first year after menopause.

Post menopause: It is defined as dating from the Final Menstrual period regardless of whether menopause was induced or spontaneous.

We have used above definition for perimenopause and post menopause in our study

RESULTS

Among 400 women, majority of women were in the age group of 40-45 years (33.75%). Majority of the women were Hindu (55.25%) followed by Muslim (40.5%).

Table 1: Socio Demographic profile and Parity of the study participants

Variables	Women (%)
Age(in years)	
40-44	135 (33.75)
45-49	127 (31.75)
50-54	76 (19)
55-60	62 (15.5)
Educational status	
Illiterate	129 (32.25)
Primary school	150 (37.5)
Secondary school	108 (27)
Higher secondary	12 (3)
Graduate	1 (0.25)
Socioeconomic status	
Upper middle II	20 (5)
Lower middle III	79 (19.75)
Upper lower IV	301 (75.25)
Age at menarche	
<12 years	80 (20)
12-14 years	270 (67.5)
>14 years	50 (12.5)

Total 37.5% of the women were educated up to primary school.

Out of 400 women, 84.75% were married, 13.5% were widowed, and 1.75% were unmarried.

As per, Modified Prasad’s SES scale ⁵, majority of the women (75.25%) belonged to Upper Lower IV socioeconomic class, followed by lower middle class III (19.75%).

270 out of 400(67.5%) women achieved menarche between the age group of 12-14 years. 80(20%) women achieved menarche below 12 years. Majority of the women (62.5%) were having 2-4 children.

Majority of the women 145 had onset of menopause between 45-49 years. Followed by 36 in whom onset was between 40-44 years. 15 had premature menopause i.e. menopause <40 years.

Mean age at menopause was found to be 45.32 with SD of +/-2.79 with the range of (32-54).

When age at menopause was correlated using ANOVA and T test with religion, education, employment status, marital status, socioeconomic status, age at menarche, parity, menstrual cycle such personal habits (tobacco/pan/ bettlenut chewing,) no significant association was found with any of the variables.

Table 2: Distribution of women based on onset of menopause

Age at onset of menopause	Women (n=205) (%)
<40 yrs	15 (7.3)
40-44 yrs	36 (17.5)
45-49 yrs	145 (70.3)
50-54 yrs	9 (4.3)

Table 3: Distribution of women according to occurrence of vasomotor symptoms

Menopausal status	Vasomotor symptoms		Present	Absent	Total	P value
	Hot flash	Night Sweats				
Perimenopausal women	18	10	28 (14.35%)	167 (85.65%)	195	0.007
Post-menopausal women	32	14	56 (27.31%)	149 (72.69%)	205	(NS)
Total	50	24	84 (21%)	276 (79%)	400	

Table 4: Distribution of women according to occurrence of vulvovaginal symptoms

Menopausal status	Vulvovaginal symptoms			Present	Absent	Total	P value
	Vaginal dryness	Vaginal irritation	Leucorrhoea				
Perimenopausal women	2	3	7	12(6%)	183(94%)	195	0.001
Postmenopausal women	15	7	43	65(31.7%)	140(68.3%)	205	(HS)
Total	17	10	50	77(19.25%)	323(80.75%)	400	

Table 5: Distribution of women according to Urological symptoms

Menopausal status	Urological symptoms			Present	absent	Total
	Increase in frequency of maturation	Stress incontinence	Urge incontinence			
Perimenopausal women	0	0	0	0	195	195
Post-menopausal women	26	45	11	82(40%)	123(60%)	205
Total	26	45	11	82	318	400

Table 6: Distributions of women according to occurrence of psychosexual symptoms

Menopausal status	Psychosexual symptoms		Present	Absent	Total	P value
	Loss of libido	Dyspareunia				
Perimenopausal	4	2	6 (3%)	189(97%)	195	0.0001
Postmenopausal women	20	14	34(16.5%)	171 (83.5%)	205	(HS)
Total	24	16	40 (10%)	260 (90%)	400	

Vasomotor symptoms were present in 84 of total participants. Out of 205 postmenopausal women, 56(27.3%) women experienced it. Whereas, out of 195 perimenopausal women, 28(14.35%) experienced it. Proportion of vasomotor symptoms was found to be more in postmenopausal group than in perimenopausal women, but it was not statically significant

Out of 400 women, 77(19.25%) experienced vulvovaginal symptoms, of which 17(22.07%) women complained of vaginal dryness, 10(12.98%) experienced vaginal irritation, 42(64.93%) complained of leucorrhoea.

It was more common in postmenopausal women as compared to perimenopausal women statistically it was found to be very highly significant. 82.35% were experiencing it for last 1-5 years

Out of 400 women, 82(20.5%) experienced urological symptoms. Urological symptoms were present only in postmenopausal women. Out of 82 26(31.71%) complained about increase frequency of maturation, 45(54.88%) experienced stress incontinence and 11(13.14%) complained about urge incontinence.

Majority of women 71.95% had these symptoms from last 1-5 years while 25.61% experiencing it for >5 years.

Out of 400 women, 40(10%) women were having psychosexual symptoms. Of this, loss of libido was present in 60% & dyspareunia was present in 40%. Psychosexual symptoms were assessed among married women. Psychosexual symptoms were more common in postmenopausal women (25.56%) as compared to premenopausal women (3.77%) statistically also it was found to be very highly significant.

Table 7: Distribution of women according to occurrence of other symptoms

Menopausal status	Muscle & joint pain (%)	Weight gain (%)	Hirsutism (%)
Perimenopausal (N=195)	74 (37.94)	42 (21.5)	1 (0.5)
Postmenopausal women (N=205)	83 (40.5)	10 (4.88)	4 (1.95)
Total	157 (39.25)	52 (13)	5 (1.25)

Out of 400 women, 157 complained of muscle and joint pain and 52 gained weight. After the age of 40yr, 5 women had H/o Hirsutism. 186women did not report any symptom,

Out of 214 symptomatic women, only 74 women were taking treatment for the same, remaining 140 women were not taking any sort of treatment.

DISCUSSION

A cross sectional study was done among the women aged 40-60 years in a rural community of K.S. Hegde Medical Academy, in order to assess epidemiological features of health problems in perimenopausal and postmenopausal women in an Rural community.

In this study, mean age at natural menopause is 45.32 years (SD+/-2.79). In a study conducted by Shah R et al among the women in Mumbai, the mean age at menopause was 44.7 years⁶ and in a study conducted by Kapur P et al among women in the Haridwar district of Uttarkhand, a state located in northern India, mean age at menopause was 46.82 years⁷. In another study conducted by Sharma S et al⁸ among urban women in Jammu, the mean age at menopause was 47.35 years. In a cross sectional study conducted by Kriplani A et al⁹ among northern Indian women mean age at menopause was 46.7 years. The mean age at menopause of was 47.16 years in Pakistan women in a study conducted by Quazi et al¹⁰. Mean age at menopause in the Malaysian women studied was 50.7 years¹¹. In another study conducted by Brambilla - DJ¹² on English women, the mean age at menopause was 50.7 years.

Mean age at menopause in Indian women is less in comparison to women from developed countries. It varies from country to country even in same country in different region. These diversities may be because of regional, community & ethics variations. Genetic and environmental and nutritional factors may also play a role.¹³

When age at menopause was correlated with religion, education, employment status, marital status, socioeconomic status, age at menarche, parity, menstrual cycle length, personal habits (tobacco/pan/ bettlenut chewing,) no significant association was found in this study.

Our findings are consistent with Kriplani A. et al,⁹ Pedro A O et al¹⁴ & Blumel J.E¹⁵ et al who found no association between the various socio-demographic, cultural, reproductive factors and age at onset of menopause.

Although hot flashes are the commonest symptom reported by many other Indian as well as studies in western countries, our study subjects reported mostly muscle and joint pain (39.25%), vasomotor symptoms (21%), urological symptoms (20.5%), vulvovaginal symptoms (19.25%), weight gain (13%), psychosexual symptoms (10%), Hirsutism (1.25%).

The prevalence of hot flushes varies widely between different cultures and countries. It has been reported as 0% in Mayan women, 10% in china,

23.3% in Hong Kong, 45% in United Arab Emirates, 74% in the United States of America, 80% in Dutch women and up to 87.2% in Denmark.¹⁶

The next major symptom experienced by study population is urinary complaints, including increase frequency of micturition, stress incontinence, urge incontinence. 20.5% participants experienced it. In the study conducted by Rekers¹⁷, the prevalence of urinary incontinence was found to be 26.4%. In study conducted by Jahanfar S et al¹⁸ among Malaysian women 42.8% of menopausal women reported vaginal dryness (including sensation of dryness or burning in the vagina, difficulty in the sexual intercourse) but only 21.4% reported sexual problems (inclusive of change in sexual desire, in sexual activity and satisfaction) this seems to be best explained by the physical changes associated with reduced estrogen levels in menopause.

In the study conducted by Taechakraichana et al¹⁹ 50.7% & 39.8% of the postmenopausal women in the middle & upper socioeconomic classes experienced dyspareunia and vaginal dryness. Sompoonporn and colleagues²⁰ found 85.4-88.5% of postmenopausal women reported both diminished sexual desire and activity but 13.9% were not concerned. The prevalence of vaginal dryness in Delhi was (7.3%) and other studies^{21,22,23} from the region has been reported much lower than what we have reported.

CONCLUSION AND RECOMEMDATION

Menopausal symptoms are either ignored or not spoke of. It is suggested that establishment of menopausal clinic within the current primary health care system can centralize attention to menopausal women and their needs. There is a necessity of a multidisciplinary approach to the problems of menopause with more stress on promotive and preventive interventions. Establishing healthy dietary practices like intake of protein, calcium, and diet rich in fruits and vegetables through family health education is recommended. Other healthy practices like brisk walking, Yoga, meditation etc. should be encouraged in this age group.

Limitations of the study: Majority of the assessment methods were quite subjective. As a menopause is a retrospective event, recall bias may occur. Due to time constraint follow up of the participants couldn't be done.

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