

JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH

How to cite this article:

CHOWTA N K,SEBASTIAN J,CHOWTA M N.COMPARATIVE STUDY OF MENOPAUSAL SYMPTOMS IN POST MENOPAUSAL AND PERIMENOPAUSAL WOMEN.Journal of Clinical and Diagnostic Research [serial online] 2008 August [cited: 2008 August 14]; 2: 959-962.

Available from

http://www.jcdr.net/back_issues.asp?issn=0973-709x&year=2008&month=August &volume=2&issue=4&page=959-962 &id=241

ORIGINAL ARTICLE

Comparative Study Of Menopausal Symptoms In Post Menopausal And Perimenopausal Women

CHOWTA N K*, SEBASTIAN J **, CHOWTA M N ***

ABSTRACT

Introduction: There is a wide variation in the frequency with which women from different ethnic groups and different socioeconomic and educational backgrounds report the occurrence of symptoms associated with their menopause. The present study is addressed to the myriad of menopausal factors that affect women's health and to compare the menopausal symptoms among the high and low socioeconomic groups.

Methodology: A prospective, non- interventional study was conducted in 200 females belonging to the post menopausal and perimenopausal age groups. Subjects who had hysterectomy, oophorectomy, and those who were on hormonal replacement therapy, steroids, calcium and vitamin D supplementation were excluded from the study. Detailed history was taken down from each subject. All subjects underwent complete physical examination including height and weight check. Routine investigations were done in all subjects. ECG and X-rays of vertebra and long bones were taken whenever it was necessary.

Results: Perimenopausal women reported greater number of symptoms when compared to the postmenopausal group. Vasomotor symptoms and psychological symptoms showed a higher proportion in the perimenopausal group when compared to the post menopausal group, which was statistically significant. In the perimenopausal group, 68% reported vasomotor symptoms and 29% reported psychological symptoms. In the post menopausal group, vasomotor symptoms were reported by only 16%, and another 16% reported psychological symptoms. There was no significant difference in musculoskeletal and genitourinary symptoms between the two groups. Genitourinary and psychological symptoms were common in the middle socioeconomic group when compared to the lower socioeconomic group. Vasomotor symptoms were more common in the lower socioeconomic group.

Conclusion: Perimenopausal women reported a greater number of menopausal symptoms when compared to post menopausal women. Women of middle socioeconomic status had more genitourinary and psychological symptoms whereas, women of the lower socioeconomic group reported more vasomotor symptoms.

Key Message: Perimenopausal women have more menopausal symptoms than post menopausal women.

Key Words: Post menopausal, perimenopausal, menopausal syndrome.

* Associate Professor, Department of Medicine, Kasturba Medical College, Mangalore.

**Postgraduate, Department of Medicine, Kasturba Medical College, Mangalore.

Associate Professor,***Associate professor, Department of Pharmacology, Kasturba Medical College, Mangalore

Corresponding Author:

Dr.ChowtaN.K.,

Email:muktachowta@yahoo.co.in

Introduction

Natural menopause is consistently defined in epidemiological literature as the last menstrual period observed retrospectively, as 12 consecutive months of amenorrhoea without an obvious cause. The term perimenopause includes the period immediately before the menopause, and the first year after menopause. It starts when the

endocrinological, biological and clinical features of approaching menopause commence[1]. The most characteristic hormonal change in the menopausal transition is a progressive, though often fluctuating rise in the level of serum FSH. The rise in LH levels tends to occur later, and is less marked. The progressive increase in the life span has resulted in an increasing number of women living long after the menopause, and developing long term consequences of menopause such as osteoporosis, psychogenic manifestations and atherosclerotic heart diseases[2]. There is a wide variation in the frequency with which women from different ethnic groups and different socioeconomic and educational backgrounds report the occurrence of symptoms associated with menopause[3]. Socioeconomic status is an important determinant of health and nutritional status, as well as morbidity and mortality. The variables that affect the socioeconomic status are different in the urban and rural population. The present study is addressed to the myriad of menopausal factors that affects women's health, and to compare the menopausal symptoms among the high and low socioeconomic groups.

Methodology

A prospective, non-interventional study was conducted in 200 females belonging to the post menopausal and perimenopausal age groups. Subjects who had hysterectomy, oophorectomy and those who were on hormonal replacement therapy, steroids, calcium and vitamin D supplementation were excluded from the study.

Subjects who self reported 3-9 months of amenorrhoea, and those subjects without amenorrhoea but with a self report of increased irregularity, were included in the perimenopausal age group[3]. Menopause is defined as the last menstrual period observed retrospectively as 12 consecutive months of amenorrhoea without an obvious cause[2].

Detailed history was taken down from each subject. All subjects underwent complete

physical examination including height and weight check. Routine investigations were done in all subjects. ECG and X-rays of vertebra and long bones were taken whenever it was necessary.

The socio-economic status scale (SES scale) developed by Kuppuswamy, was used to measure the socio-economic status of individuals in an urban community. Three variables- education, occupation and income were included in the scoring system. Scores <10 was included in the lower SES, and scores from 11-25 in the middle class group.

Results

A total of 200 subjects were included in the study, out of which 100 belonged to the perimenopausal age group, and the other 100 belonged to the post menopausal age group. Perimenopausal women reported greater number of symptoms when compared to the postmenopausal group. Vasomotor symptoms and psychological symptoms showed a higher proportion in the perimenopausal group when compared to the post menopausal group, which was statistically significant. In the perimenopausal group, 68% reported vasomotor symptoms, and 29% reported psychological symptoms. In the post menopausal group, vasomotor symptoms were reported by only 16%, and another 16% reported psychological symptoms. There was no significant difference in the musculoskeletal and genitourinary symptoms between the two groups.

Genitourinary and psychological symptoms were common in the middle socioeconomic group when compared to the lower socioeconomic group. Vasomotor symptoms were more common in the lower socioeconomic group. Vasomotor symptoms were reported by 89% in the lower socioeconomic group. There were no reports of psychological symptoms in the lower socioeconomic group. There was no significant difference in musculoskeletal symptoms with respect to the socioeconomic status. Genitourinary symptoms were

reported in 47.7% of the middle socioeconomic group, and psychological symptoms were reported in 44.6% of the middle socioeconomic group, which is statistically significant when compared to the lower socioeconomic group.

Discussion

The most characteristic symptoms of the menopausal syndrome are hot flushes, sleep disturbances and mood changes resulting from the hyperactivity of the mid brain-hypothalamic- pituitary axis, and from changes in the central nervous system. Musculoskeletal symptoms characterized by back ache, fractures on minimal trauma, decreased height, and mobility are common due to osteoporosis. The most common symptoms observed in the present study were musculoskeletal symptoms, which were seen in 98(48%) subjects, followed by vasomotor symptoms which were seen in 84(42%) patients. Genitourinary symptoms like incontinence, frequency, urgency, difficulty in voiding etc, were seen in 52 patients, and psychological symptoms were seen in 45 patients.

An earlier study by Taylor also showed that musculoskeletal symptoms were the most prevalent complaints, followed by psychological symptoms[5].

Our study showed that perimenopausal women showed greater symptoms when compared to menopausal women. A study by Taylor also showed that menopausal symptoms peak at the perimenopausal period, followed by a decline in symptoms during the post menopausal period[5]. The specific symptoms that increased at perimenopause may be subclinical signs of underlying biological and cognitive changes due to sudden changes in ovarian hormones. In contrast to the study done by Berg *et al*[6], the present study showed that vasomotor symptoms were more prevalent in the perimenopausal group, while musculoskeletal symptoms were common in the post menopausal age group.

Lagos *et al*[7] showed that women of low socioeconomic status had greater prevalence of biological and psychological symptoms. Van Keep and Kellrhals demonstrated that women of the lower socioeconomic group have more severe menopausal symptoms and poorer subjective adaptation to daily life than women of the higher socioeconomic class[8]. This is in contrast to the present study, which showed a greater prevalence of musculoskeletal and psychological symptoms in the middle socioeconomic group, while vasomotor symptoms were found to be more prevalent in the lower socioeconomic group. The difference found in the study could be due to sociocultural factors that are known to modify the experience of menopause and midlife. The loss of attractiveness and youth has a negative impact on the individual’s perceptions of middle age. The kind and quality of interpersonal relationships that a woman has with her family and others, influences how well she copes with midlife.

[Table.Fig 1] Comparison of menopausal symptoms in perimenopausal and postmenopausal age group

Symptoms	Perimenopausal	Postmenopausal	Total
Vasomotor	68	16**	84
Musculoskeletal	54	44	98
Genitourinary	36	16*	52
Psychological	29	16*	45

Z test for proportion
**p=0.001, *p=0.05

[Table.Fig 2] Perimenopausal symptoms in middle and low socioeconomic group

Symptoms	Middle SES n (%)	Low SES n (%)
Vasomotor	37(56.8)	31(89)*
Musculoskeletal	38(58.5)	16(45.7)
Genitourinary	31(47.7)	5(14.3)*
Psychological	29(44.6)	0*

Z test for proportion
*p=0.001

References:

[1] Research on menopause. Bulletin of World Health organization 1990; 34;1141-43.
 [2] Davey DA. The menopause and climacteric. In;Charles R Ed. Dewhurst’s textbook of obstetrics and gynaecology for post graduates. 5th ed. 1995;p609.
 [3] Donald J. Brambilla, Sonaja M, Kinlay M, Johannes CB. Defining the perimenopause for application in epidemiologic investigations. Am J Epidemiol. 1990; 140: 1091-96.

- [4] Barbo DM. The physiology of menopause. *Med Clin North Am* 1987 Jan; 71(1): 11-20.
- [5] Taylor DL, Fonseka P. Symptom experience of Filipino American Mid life women. *Menopause*. 1999; 6: 105-14.
- [6] Berg JA, Goonaratna C, Wijeywordene K. Perimenopausal symptoms in Srilankan Women. *Ceylon Med J* 1999; 44(2):63-9.
- [7] Lagos X, Navarro N, Illaness. Prevalence of biological and psychological symptoms in perimenopausal women of different socio economic levels. *Obstetrics and gynaecology Rev. Med Chil* 1998; 126(10) 1189-94.
- [8] Barbara A, Schindler. Psychiatric disorders of midlife. *Med Clin North Am* 1987; 71(1):73-80.