

Original Article

Physical Activity Improves Menopausal Symptoms Among Postmenopausal Women

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Abstract

Background: Menopausal symptoms in postmenopausal women is a health hazard all over the world. Physical exercise may play a significant role in the management of menopausal symptoms among postmenopausal women.

Objective: This study was undertaken to see the effects of physical exercise on menopausal symptoms among postmenopausal women.

Methodology: This study was carried out in the Department of Physiology, Sir Salimullah Medical College, Dhaka, from 1st January, 2009 to 31st December, 2009. A total number of 60 postmenopausal women having age ranged from 50-60 years were included in the study. Among 60 postmenopausal women, 30 were performing regular physical exercise and 30 were sedentary postmenopausal women. History of menopausal symptoms from postmenopausal women were collected from known relatives and associates. The statistical analysis was done by using appropriate test as applicable.

Results: Menopausal symptoms were significantly ($p < 0.001$) higher in sedentary postmenopausal women than postmenopausal women with regular physical exercise.

Conclusion: Physical exercise could be effective in improving menopausal symptoms in postmenopausal women.

Key words: Menopausal symptoms, Postmenopausal women, Physical exercise.

Introduction

Menopause is best defined as the absence of menses for 12 consecutive months. It usually occurs between the age of 45-50 years¹. Some features of menopausal symptoms such as hot flushes, night sweating, anxiety, emotional liability, irritability, depression, vaginal infection etc occur in this period. Due to lack of physical activity menopausal symptoms may arise among these groups of women^{1,2}. Menopausal

symptoms in postmenopausal women is a common health hazard all over the world. Women's complaints are commonly associated with vasomotor, psychological and urogenital symptoms with an important effect on their sexual experience which ultimately hampers daily life style^{2,3}. There is a strong positive correlation between menopausal symptoms and sedentary life style among these group of women^{2,3,4}.

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The most specific and frequent symptoms of menopause are hot flushes, perceived in 86% of women causing a sudden redness over the face and torso followed by an intense body heat and transpiration. They might appear at any time and interfere with daily activities^{4,5}. Frequent physical complaints such as fatigue, pain, discomfort and lack of energy and working capacity affect 96% of women while psychological symptoms such as depression, anxiety, sadness or irritability appear in 63% of cases^{2,3,5}. Physical exercise may play a significant role in the management of menopausal symptoms among postmenopausal women. Moreover, postmenopausal symptoms and complications can be prevented by reasonable restriction of diet, by appropriate physical exercise and by regular walking for at least an hour everyday^{5,6}. Again physical activity not only improve menopausal symptoms but also improve overall health of postmenopausal women, thereby provide a healthy body and mind in this group of women^{7,8}.

Postmenopausal symptoms and complications are increasing day by day throughout the world, especially in Bangladeshi women. Most of this complications arising may be due to sedentary life style. Although some study has been done on this regard in abroad^{2,10,19} but no such published data has yet been available in our country. The finding of this study may give a guideline to the physicians for proper management of the women with postmenopausal symptoms. Moreover, it is intended to create awareness among healthy adult women to prevent and also to minimize the risk of postmenopausal symptoms.

Methods

This cross sectional study was carried out in the department of physiology, Sir Salimullah Medical College, Dhaka between 1st January 2009 to 31st December 2009. A total number of 90 subjects were taken in this study, and all of them belonged to middle socioeconomic status. Among the 60 postmenopausal women, age ranged from 50-60 yrs were included in this study, which was further divided into group A consisting of 30 sedentary postmenopausal women and group B consisting of 30 postmenopausal women with regular physical exercise. Protocol of this study was approved by the Institutional Ethics Committee (IEC) of Sir

Salimullah Medical College, Dhaka. All the postmenopausal women were selected from known relatives and associates. Subjects having history of Hypertension, Diabetes Mellitus, Tuberculosis, Heart disease, Renal disease, other acute and chronic diseases, alcohol users, using prescribed medicine were excluded from this study. After selection of the subjects, the objectives and benefits of the study were explained to each subject and written informed consents were taken from the subjects. Detail personal, dietary, medical, family, socioeconomic, occupational and drug history of each subject were recorded in a prefixed questionnaire and thorough physical examinations were also done and documented. Height and weight of the subjects were measured for the calculation of BMI.

Results

All the groups were matched for age. Again no significant difference of BMI was observed among group A and B (Table-I).

Table I: Mean \pm SD of Age and BMI in different groups (n=60)

Group	n	Age (years)	BMI (kg/m ²)
Group A	30	54.50 \pm 2.22 (51 -59)	22.12 \pm 0.60 (20.55 -22.89)
Group B	30	54.53 \pm 2.08 (51 -59)	22.13 \pm 0.75 (19.92 -22.89)
Statistical analysis			
Group	n	Age (p value)	BMI (p value)
Group A vs Group B		0.999 ^{ns}	0.999 ^{ns}

Group A = Sedentary postmenopausal women (control)
 Group B = Postmenopausal women with regular physical exercise (study)
 *** = Significant at p<0.001
 ns=Not significant.
 n=total number of the subject

Menopausal symptoms were significantly (p<0.001) higher in group A in comparison to those of group B (Table-II and Table-III).

Table II: Distribution of the study subjects by the presence of their menopausal symptoms (n=60)

Menopausal symptoms	Group A	Group B
	(n=30) no. (%)	(n=30) no. (%)
Depression	30 (100.0%)	8 (26.7%)
Arthritis	30 (100.0%)	5 (16.7%)
Vasomotor symptoms	25 (83.3%)	5 (16.7%)
Sleep disturbances	27 (90.0%)	2 (6.7%)
Urgency of micturation	29 (96.7%)	12 (40.0%)
Anxiety	26 (86.7%)	11 (36.7%)
Headache	15 (50.0%)	3 (10.0%)
Dyspareunia	12 (40.0%)	9 (30.0%)
Vaginal infection	22 (73.3%)	7 (23.3%)
Palpitation	12 (40.0%)	2 (6.7%)

Group A = Sedentary postmenopausal women without HRT (control)

Group B= Postmenopausal women with regular physical exercise (study)

Table III: Statistical analysis of the results of table II

Menopausal symptoms	Group A vs Group B
Depression	0.001***
Arthritis	0.001***
Vasomotor symptoms	0.001***
Sleep disturbances	0.001***
Urgency of micturation	0.001***
Anxiety	0.001***
Headache	0.001***
Dyspareunia	0.417 ^{ns}
Vaginal infection	0.001***
Palpitation	0.002**

Statistical analysis was done by chi-square and #Fisher’s Exact test.

Group A = Sedentary postmenopausal women without HRT (control)

Group B = Postmenopausal women with regular physical exercise (study)

* = Significant at p <0.05

** = Significant at p <0.01

*** = Significant at p <0.001

n= Total number of the subject

Discussion

In this study menopausal symptoms were significantly higher in sedentary postmenopausal women in comparison to physically active postmenopausal women. This finding is in consistent with that of other researchers^{9,10}. On the contrary, some other groups of investigators observed no association between physical activity and vasomotor symptoms. This discrepancy might be due to surgically menopausal women were also included, but in the present study only naturally menopausal women were included^{11,12}.

Some researchers reported that, there is an association between increased physical activity and reduced vasomotor symptoms^{13,14}. However this relationship was only detected in women with a serious history of depression, or in those with concomitant body weight loss. Stretching exercises, in over weight women, as well as respiratory exercises can also improve vasomotor symptoms^{14,15}. Moreover, aerobic physical activity appears to be most effective in preventing climacteric symptoms, due to cardio-vascular fitness improvement¹⁵. It has also been reported that, aerobic exercise has been recommended in the treatment of women with climacteric symptoms, especially in relieving vasomotor and psychological symptoms that are depression and anxiety^{16,17}.

Again, physical activity specially walking, reduce palpitation. Heart complaints are related to cardiovascular illness, which are leading cause of death among women after menopause¹⁸. In addition, postmenopausal women with aerobic fitness exercise for 12 weeks got low risk profiles for CVD. Moreover, life style modification by low exercise that is walking may reduce weight and visceral adipose tissue, thereby create a favorable situation for women to lead a healthy and safe life¹⁹.

There is significant release of endorphins occur during exercise from several areas in the brain. Endorphins relieve mental stress and induce a sense of well being. In this way exercise improves the efficiency of mental work, thereby decreasing depression and improves mood²⁰. Furthermore, regular physical exercise improves fibrinolytic activity and increases blood supply to myocardium, thereby decreasing Ischemic Heart disease (IHD) and many other complication. This is now, regular physical exercise reduces all the menopausal symptoms and improves physical condition of patients²¹.

In the present study, menopausal symptoms were pronounced among sedentary postmenopausal women in comparison to those of physically active postmenopausal women. Moreover, physical exercise is a mood elevator and improve daily lifestyle.

Conclusion

In the present study, menopausal symptoms were observed in sedentary postmenopausal women. Again, in this study it was revealed that less menopausal symptoms were observed among physically active postmenopausal women. So, regular optimal physical exercise is more effective in lowering menopausal symptoms among postmenopausal women.

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