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Original Article

Association of Menopause Related Vasomotor Symptoms with Socio-Demographic Factors

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Abstract

Background : To find out the relationship of severity of menopause related vasomotor symptoms with socio-demographic factors.

Methods: In this descriptive study 100 postmenopausal ladies with physiological menopause of ≥ 4 years and with vasomotor symptoms (hot flushes, night sweats) were included. All the women with premature menopause, surgical menopause, taking hormonal replacement therapy and with medical conditions like diabetes, hypertension, cardiac disease and thyroid disease were excluded. Severity of vasomotor menopausal symptoms was classified as, 0: None;1: Mild (Sensation of heat without sweating);2: Moderate (Sensation of heat with sweating able to continue activity);3: Severe (Sensation of heat with sweating causes cessation of activity).Association of vasomotor symptoms was assessed against educational status,professional status, socioeconomic status (monthly income) and body mass index (BMI).p value <0.05 was considered as statistically significant.

Results: Mean age of women was 52 years while mean age of menopause was 49 years. All the participants were married. Vasomotor symptoms of mild severity were observed in women who were educated till matric, were doing job had family income >30,000, BMI between 25-27kg/m^2. Severe vasomotor symptoms were observed in females who were uneducated or educated till primary, were housewives, had family income < 20,000 and BMI > 30kg/m^2.A statistically significant relationship of vasomotor symptoms was found with socio-demographic factors (p<0.05).

Conclusion: Socio-demographic factors have direct relationship with severity of vasomotor symptoms of menopause.

Key Words: Menopause, Vasomotor symptoms, Hot flushes,

Introduction

Vasomotor symptoms of menopause (hot flushes, night sweats,etc) are considered as cardinal symptoms of menopause.[1] Study of women health across the nation (SWAN) showed that 60-80% of women experience vasomotor symptoms at menopause.[2] Research indicates that vasomotor symptoms are more frequently found in late peri-menopause and early postmenopausal years.[3] Vasomotor symptoms are a form of temperature dysfunction that results from fluctuating and declining gonadal hormones.[4] This effect is related to estrogen withdrawl which leads to changes in central nervous system neurotransmitters.[5] Vasomotor symptoms of menopause are given importance because of the fact that they adversely affect the quality of life.[6] They lead to disturbance in sleep, mood and difficulty in concentration. These factors can affect the daily functioning, social activities and sexual life of female.[7] This effect on quality of life leads to pursuance of treatment modalities to alleviate these symptoms.[8] Hormonal replacement therapy is the most effective for vasomotor symptoms of menopause.[9]

Despite the physiological nature of vasomotor symptoms, it is seen that socio-demographic factors have an effect on severity of these symptoms.[10] Association of these symptoms have been shown with socioeconomic class, educational status, working status and marital life.[11] Among these socio-demographic factors some have their impact on both hot flushes and night sweats and some have impact on only one symptom.

Importance of these vasomotor symptoms is enhanced by the fact that they are immense burden on finance. Direct cost is due to multiple visits to physician and laboratory tests.[12] Indirect cost is low cognitive function of female and loss of productivity at home.[13] Clinical guidelines report that most women experience vasomotor symptoms for 6 months to 2 years after menopause and some researchers report the duration till 4 years.[14]

Patients and Methods

In this descriptive study,conducted in Gynaecology / Obstetrics Department of Punjab Social Security Hospital Islamabad from July 2014 to April 2015, 100 postmenopausal ladies were included. All the women

with physiological menopause of ≥ 4 years and with vasomotor symptoms were included in this study. All the women with premature menopause, surgical menopause, taking hormonal replacement therapy and with medical conditions like diabetes, hypertension, cardiac disease and thyroid disease were excluded from study. Questions were asked regarding presence of vasomotor symptoms which included hot flushes and night sweats. Severity of symptoms were asked from these women. Severity of vasomotor menopausal symptoms was classified as:0: None;1: Mild (Sensation of heat without sweating);2: Moderate (Sensation of heat with sweating able to continue activity);3: Severe (Sensation of heat with sweating causes cessation of activity).[15] Association of vasomotor symptoms was assessed against educational status, professional status, socioeconomic status (monthly income) and body mass index (BMI).Percentages were calculated for descriptive variable and t test was used to correlate the socio-demographic factors with severity of vasomotor symptoms and p value <0.05 was considered as statistically significant.

Results

Mean age of women in the study was found to be 52 years SD± 0.42. Mean age of menopause was found to be 49 years. All the patients who participated in our study were married. Twenty percent were uneducated. Majority of women were housewife (95%) and only 5% were doing job. Majority (60%) had monthly income between 10,000 to 20,000 rupees per month. Five percent had BMI between 25-27 kg/m^2 , 15% had BMI between 28-30 kg/m^2 and 50% had BMI 31-32 kg/m^2 .Severe vasomotoor symptoms were present in 80% (Table 1).Detailed data analysis showed that mild vasomotor symptoms were found in the females who were educated till matric, they were doing job, had monthly income >30,000 and they had managed to maintain their weight between 25-27 kg/m^2. Moderate symptoms were found in the females who were educated till middle, in 15% of house wives, with monthly income between 20,000 - 30,000 and those having BMI between 28-30 kg/m^2.Severe vasomotor symptoms of menopause were found among uneducated and primary educated , among 80% of house wives, with monthly income <20,000 and had BMI > 30kg/m^2 (Table 2).

Discussion

All women eventually go through the transitional phase called menopause and all of them will experience cessation of menstruation. This is associated with certain symptoms, among them vasomotor symptoms are most bothersome.

Table 1: Relationship of socio-demographic factors with severity of vasomotor symptoms of menopause

Socio-demographic factors	Vasomotor symptoms (n=100)	Severity of vasomotor symptoms	p-value
Education			
Uneducated	20(20%)	Severe	<0.05
Primary	60(60%)	Severe	
Middle	15(15%)	Moderate	
Matric	5(5%)	Mild	
Professional status			
Housewife	95(95%)	80% Severe 15%	<0.05
Employed(Aya, House keepers)	5(5%)	Moderate	
		Mild	
Family monthly income			
<10,000	20(20%)	Severe 80%	<0.05
10,000-20,000	60(60%)	Severe	
20,000- 30,000	15(15%)	Moderate	
>30,000	5(5%)	Mild	
BMI (Body mass index)			
25-27 kg/m^2	5(5%)	Mild	
28-30 kg/m^2	15(15%)	Moderate	
31-32 kg/m^2	50(50%)	Severe 80%	<0.05
>32kg/m^2	30(30%)	Severe	

Table 2: Severity of vasomotor symptoms of menopause in percentages

Severity of vasomotor symptoms	Percentage
Mild symptoms	5%
Moderate symptoms	15%
Severe symptoms	80%

Vasomotor symptoms of menopause are the leading cause for which women seek medical advise. Hot

flushes and night sweats are the most notable causes.[16] Incidence of vasomotor symptoms varies in different races. Highest incidence of vasomotor symptoms is found in African American women (45%) and lowest in Japanes women(17.6%).[17] Asian women suffer from less vasomotor symptoms.[18]. Reason of this difference include variation among different races with regard to body mass index and socioeconomic status.[19]

A significant relationship is seen between the menopausal vasomotor symptoms and socio-demographic factors. Education level of the female has been found to have important association with vasomotor symptoms of menopause. Low educational status is considered as high risk factor of vasomotor symptoms.[20] Low literacy rate is associated with more psychological stresses leading to increase severity of hot flushes and night sweats.[21] A study conducted in Saudi Arabia shows that females who had received higher education had less menopause related vasomotor symptoms.[22]

Housewives experience the menopause associated vasomotor symptoms more. Working women have more communication with other people that is why they suffer from mild symptoms.[23] A study conducted in Sindh showed that 95% of the females who suffered from menopausal symptoms were house wifes.[24] This is because the working women have more responsibilities and they can cope in a better way with menopausal symptoms.[25]

Another important socio-demographic factor responsible for vasomotor symptoms is socioeconomic status. The females belonging to low socioeconomic strata are more likely to report vasomotor symptoms with increased severity as compared to females belonging to high socioeconomic strata.[26] Low socioeconomic status is associated with increased stress and increase weight gain.[27] Present study showed that women with monthly family income <20,000 experienced severe vasomotor symptoms while the one with monthly family income>30,000 experienced mild vasomotor symptoms.

Life style factors like body mass index(obesity) is also related to vasomotor symptoms and its severity.[28,29] Results of a study indicate that increased abdominal and subcutaneous fat are associated with increase severity of hot flushes.[30] It may result from thermoregulatory effect and endocrine product of the fat (leptin), as leptin is associated with occurrence and increase in duration of hot flushes in menopausal women.[31] Our study results show that women with BMI between 25-25kg/m^2 suffer from mild while women with BMI >30kg/m^2 suffer from severe vasomotor symptoms. Exercise which releases endorphins into the blood helps to reduce vasomotor symptoms.[32] Royal College of Obstetrics and Gynaecology recommends that women should consider exercise as a treatment for vasomotor menopausal symptoms.[33]

Vasomotor symptoms of menopause are given importance as they lead to bad health related quality of life.[34] They also badly affect mood and sleep of females and eventually leading to disturbance in their cognitive performance. [35,36]

Conclusion

1.Vasomotor symptoms associated with menopause have correlation with socio-demographic factors. Identification of these factors and counselling of these female can help in decreasing severity of these symptoms.

2.Treatment of these symptoms in the form of psychological support, exercise, dietary modification, and offering hormone replacement therapy to low risk group can help these females.

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