

RESEARCH ARTICLE

Common health issues of menopausal women living in Char area around Fakhruddin Ali Ahmed Medical College and Hospital, Barpeta in North-East India

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ABSTRACT

Objective: To evaluate the health status, age at menopause and associated symptomatology amongst women at mid-life living in adjoining Char area of FAAMC.

Materials and Methods: A community based cross-sectional study was conducted from 1st January, 2012 to 31st December 2013. A pre-structured questionnaire was followed while 100 menopausal women were counselled belonging to Char area in Barpeta district of Assam.

Results: Mean age of menopause was 44.53 years. Main symptoms associated with menopause were found to be as joint pain (51%), backache (48%), fatigue (36%), urinary problems (28%) and hot flushes (20%) and cold sweats (12%). Other common ailments were found to be arthritis (30%), hypertension (18%) and diabetes (4%).

Conclusion: Mean age at menopause was 44.53 years. Main co morbid conditions were arthritis and hypertension.

Key words: Menopause, Char areas, Assam

Conflict of interest: None. **Disclaimer:** Nil.

Women now live longer than what it was a century back, resulting in an increasing aged population globally. Menopause is probably a very important event occurring at mid-life of a woman and heralds the end of her reproductive life. The age at which the natural menopause (NM) occurs is between the age of 45 and 55 years worldwide. Women spend more than one third of their life in

postmenopausal state.

In 1990, there were about 467 million postmenopausal women worldwide and this figure is expected to rise to 1200 million by 2030. And surprisingly out of these, 76% will be living in developing countries and India will have substantial number of them.

The most important factor which determines a

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woman's age at menopause is her reserve of ovarian follicles [1]. This reserve continues to decrease after birth of a baby-girl and only less than 0.01% are ovulated in the entire reproductive life of a woman; the remainder degenerate and menopause sets in when the number of primordial follicles fall behind a critical number [2]. Factors which ultimately affect the age at menopause may have important clinical implications, because early or premature menopause is associated with an increased risk of cardiovascular disease and osteoporosis, whereas delayed menopause has been associated with increased risk of breast and endometrial malignancies [3]. These associations may be the result of direct effect of menstrual function (or lack of it) and the related hormonal milieu or may be an indirect result of the other factors present with the age at menopause. The association of menopausal age with the risk factors for different medical conditions makes age at menopause an important epidemiological issue [4, 5].

The degree of severity of symptoms experienced by a woman can be influenced by a number of factors, including age at menopause. No study of any kind has ever been made on these poor, uneducated and hard working women living in Char area (immigrants settled on river banks) in Barpeta district of Assam. Therefore the present study attempts to find out the mean age at menopause, common symptoms and associated menopausal problems faced by the women hailing from Char area.

Materials and methods

This study was a cross sectional study amongst the women living in the Char area around Fakhruddin Ali Ahmed Medical College and Hospital which is only 3years old tertiary centre located in a semi-urban locality. 100 menopausal women were randomly selected to participate in the study. They were from 40 to 54 years and the study period was from January 2012 to December 2013. Women who reported 12 continuous months of amenorrhoea without hysterectomy or any other surgical or radiological procedures that would have caused the stoppage of their periods, were labelled as having attained natural menopause. Age at

natural menopause was defined as the age at last menstrual period. The study was approved by the ethics committee of FAAMC, Barpeta.

The participants of the study were interviewed in the OPD area in their own language; using a pre-structured twenty six items General Health Questionnaire after obtaining an informed consent from each participant. The information regarding age, educational status, marital status, dietary habits, and clinical symptoms of menopause were taken from each participant. Data regarding their co-morbid conditions were recorded from medical record sheets of the participants.

Anthropometric measurements such as weight, height, waist circumference and blood pressure of each woman were recorded during the interview. Body mass index (BMI) and waist hip ratio (WHR) of all the participants were calculated.

Table 1. Demographic profile of menopausal women

Age distribution (Age at menopause)	Number (N= 100)
< 40 years	8
41 – 45 years	40
46 – 50 years	34
> 50 years	18

Mean age at menopause	44.53 years
Tobacco users	43.10 years
Non –tobacco users	44.62 years

Marital status

Married	90
Unmarried	10

Education status

Literate	40
Illiterate	60

Dietary habits

Vegetarian	19
Non-vegetarian	81
Tobacco users	36

Affected by menopause

Negative manner	34
Not affected	66

Table 2. Menopausal symptoms

Symptoms	Age in yrs				%age of Total
	< 40 (n=8)	40-45 (n=40)	46-50 (n=34)	> 50 (n=18)	
Hot flushes	5	13	2	0	20
Cold Sweats	3	4	3	2	12
Fatigue	6	10	12	8	36
Headache	2	4	3	5	14
Backache	4	12	20	12	48
Joint Pain	2	20	15	14	51
Urinary symptoms	1	4	10	13	28
Forgetfulness	2	15	14	12	43
Depression	3	21	12	7	43
Irritation	3	22	11	5	41
Excitable	2	16	13	4	35
Sleep disorders	1	12	14	10	37
Dizzy spells	2	11	10	9	32
Pounding of heart	2	9	14	3	28
Cold hands	2	8	8	6	24
Numbness	3	10	12	11	36
Crying spell	0	2	4	0	6
Weight gain	2	8	8	4	22
Excessive sweating	1	4	4	2	11
Breast pain	2	3	4	2	11
Low interest	0	2	4	2	8
Constipation	0	3	4	3	10
Diarrhoea	0	4	2	3	9
Low vision	0	6	10	6	22
Nervous breakdown	0	4	4	2	10
Breathing discomfort	0	8	6	0	14

Mean age of menopause was calculated. Percentage proportion of various symptoms of menopause and other diseases like hypertension, diabetes and arthritis were also calculated. Data thus collected were analysed by computer after checking for completeness and consistency.

Results

The study population comprised of 100 women with NM. The age range at menopause was reported to be from 35 to 55 years and mean age at menopause was 44.53 years. Out of all women included in

the study 90% were married and all of them were above Para 3, 10% were single (unmarried/widowed). 40% of these women were literate and 60% of them were illiterates. Dietary habits showed that 82% of the participants were non vegetarians and only 18% were vegetarians. 36% of the women had the habit of taking tobacco in some form (smoking/chewing). 66% of the women were not affected by menopause in a negative manner but 36% said they were. (Table-1)

Mean number of menopausal symptoms were as (Mean±SD) 6.0±8.55 in <40years, 5.9±5.42 in 40-45years, 6.6± 4.64 in 46-50 years and 8.1±6.07 in >50 years of age groups. Joint pains (51%), backache (48%), fatigue (36%), urinary problems (28%), hot flushes (20%) and cold sweats (12%) were the most frequently complained symptoms in the study (Table- 2). Other notable health issues observed were as per anthropometric measurements of the women: 68% were in normal range of BMI, while 18% were overweight, 4% were obese and 10 % were observed as underweight. (Table 3)

Common co morbid conditions afflicting the women were arthritis (30%), hypertension (18%) and diabetes (4%).

(Figure 1)

Discussion

Mean age at menopause in the present study was observed as 44.53 years which is similar to the mean age at menopause as found by Mahajan et al and Bagga et al. Though it was lower in comparison to the developed countries, which is

Table 3. BMI & WHR of menopausal women

Age at Menopause	BMI				WHR			
	< 18	18-24	25-29	≥30	0.7	0.8	0.9	≥1
< 40 years (n=8)	1	6	1	0	0	2	4	2
40-45 yrs (n=40)	3	29	7	1	2	24	13	1
46-50 yrs (n=34)	4	23	4	3	4	26	4	0
> 50yrs (n=18)	2	10	6	0	4	10	4	0
Total (n=100)	10	68	18	4	10	62	25	3

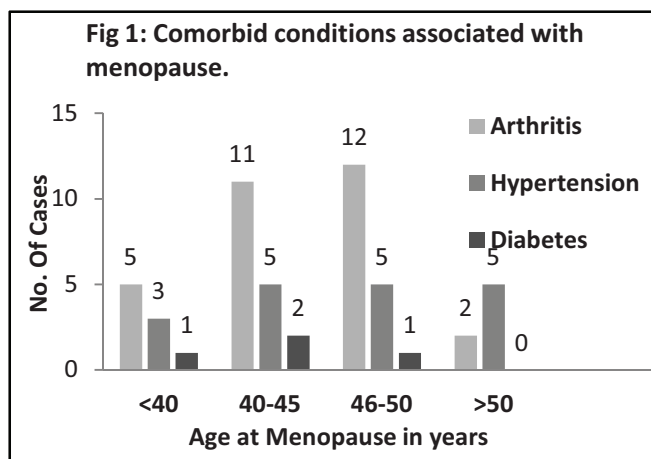
*BMI: Body Mass Index, WHR: Waist Hip ratio.

51years [6, 7], it was comparable to mean age of Indian women of 44 years by Singh and Arora [8] and 44.7years by Shah et al [9]. Another study was conducted by Randhawa et al [10] in 1987 and reported the mean age at 43.55years. Many authors have shown positive co-relation of better socioeconomic status and higher age at menopause [11, 12].

It was also observed that menopause was reported about 2 years earlier in tobacco user i.e. at 42.5 years of age as compared to non tobacco users. The use of tobacco has been reported to be the most significant factor influencing the age at menopause [13]. The effect may be dose related and perhaps mediates more effectively due to lowered estrogen concentrations [14,15,16,17,18,19].

In this study, 66% of the women accepted menopause positively and only 36% had negative feeling. Majority of the women living in eastern part of the world view menopause as natural event in their life and accept it psychologically unlike women in many countries in the west where they have many symptoms affecting their day to day life [20, 21]. In a Nigerian study many women accept it negatively [22].

The mean number of menopausal symptoms in this study were comparable to observations by Bagga et al [23] and Mahajan et al [24]; mean number of symptoms increasing linearly with the rising age of the women. Joint pain (51%) was the most common symptom reported followed by backache (48%) and fatigue (36%) whereas urinary symptoms (28%), hot flushes (20%) and cold sweats(12%) were very less frequently occurring symptoms in this study group. It was probably because of their highly demanding physical labour in day to day life both at home and agricultural field and 78% of them having normal BMI or less. Bagga et al had observed loss of interest (93%), pressure/ tightness in head & body(83%), weight gain (67%) and hot flushes (79.6%) to be the most prominent symptoms followed by fatigue(74.8%) and joint pains (69.6%); Mahajan et al also found fatigue(62%) as most common symptom followed by hot flushes



(56%) and cold sweats(52%) and backaches (51%) in their respective studies which differ significantly with the present study because of completely different geographical locality of study population, their working behaviour etc. Majority of the study population belonged to hard working women both at home and in agricultural fields almost throughout the year, quite backward socioeconomically and 60% of them have not gone to school. Hence, they complain of symptoms which were related to highly demanding day to day work not hot flushes and cold sweats as like their counterparts in studies by Bagga et al and Mahajan et al. WHO report [13] also highlights that symptoms of hot flushes are more prevalent in European and North American populations than Asian and central American regions. Other preventable co morbid conditions were arthritis(30%), hypertension(18%) and diabetes(4%). 22% of women were found to be having their BMI higher than normal and relationship between high BMI and hypertension was found to be statistically significant ($P<0.05$). Colin et al [19] also found similar association of BMI with HTN in all ethnic groups.

In the present study, the symptoms of joint pains and backache were reported more in the age group of 40-45 years. Similar reports were also observed by Mahajan et al [24]. This may be due to the fact that the women in this group were actively engaged both in household activities as well as required to work in the field for agricultural purpose, which was quite demanding on their

physical abilities, forcing them to seek relief more from these symptoms than any other problems.

Any study of this nature might have some methodological limitations and present study was no exception. Because the diagnosis of menopause itself is a retrospective, most studies adopting this design including the present one, had to rely on accurate knowledge and unbiased reporting of age. The accuracy of information depends upon actual period of time since menopause, alertness, attitude, motivation and level of education of the women studied.

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