

A Cross Sectional Study on Health Profile of Post-Menopausal Women of Urban Area of Gujarat

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Abstract :

Introduction : Menopause is the inevitable stage of women's reproductive cycle. Indian women spend around a third of their life in post-menopausal period. The common climacteric symptoms experienced by women are vasomotor, physical and psychological symptoms. There is no specific health care programme for post-menopausal women. **Objective:** The objectives are to determine the average age at attaining menopause and the prevalence of various menopausal symptoms among postmenopausal women. **Method:** The present cross sectional study was carried out in four different urban sites of Gujarat. Two stage sampling methods adopted to select participants. Data was collected by personnel interview using a pre-tested structured questionnaire. **Results:** Median age of menopause was 45 years with a range from 35 to 56 years. The most common symptoms present among participants were fatigue (73%), irritability (72%), weight gain (61%), headache (59%), anxiety (52%), joint pain (51%), insomnia (51%). The Vasomotor symptoms like hot flushes, night sweat and urinary incontinence were present respectively in 41%, 35% and 23% of study participants. **Conclusion:** The study shows that postmenopausal women in Gujarat suffer from various vasomotor, physical and psychiatric problems with varied frequencies. This study reveals that Indian urban women attain a menopause at early age. Frequency of the post menopausal symptoms increased when women attain menopause at early age.

Key words : Age at Menopause, Menopausal symptoms, Postmenopausal women

Introduction :

Menarche and menopause are the two important stages of the women's life cycle. The period of in-between is the reproductive phase. Menopause is the stage of permanent cessation of menstruation retrospectively determined after twelve months of amenorrhea. Menopause is the natural course of maturation. It is a unique phase of the woman's reproductive cycle, transition from reproductive to non-reproductive stage. It is resulting from the loss of ovarian follicular activity. Many women pass this phase with little difficulty others faces wide variety of symptoms leads to decrease quality of life.^[1,2]

Eighty five million women in India are above the age of 50 years and certainly in post menopausal period also^[3] In the current scenario life expectancy

of Indians are increasing, so women living longer than before, a majority of them would spend around a third of her life in post menopausal period.^[4]

Among Indian women physiological menopause sets in between 45 to 55 years of age. Studies reported that there is diversity in the menopausal symptoms in Asian and western women. Indian women of different geographical regions are also showing variety in menopausal symptoms and age at menopause.^[5] The immediate clinical symptoms of menopause are the result of change in the hormones in to body and its effect on various organs of body, mainly cardiovascular and muscular-skeleton system.^[2]

The year immediately prior and the decade afterwards of menopause has much clinical

implication.^[6] A wide variety of symptoms are reported among post menopausal women during this transitional period, these symptoms remain present over a period of months to years.^[7] The common climacteric symptoms experienced by women can be grouped into vasomotor, physical and psychological symptoms.^[8]

Hot flushes, night sweats, muscles and joint pains, sleep disturbances, urinary frequency, vaginal dryness, poor memory, anxiety and depression are commonly reported symptoms.^[6] Menopausal symptoms affect the quality of life significantly at various stages of menopause.^[9]

Health problems among menopausal women are significant challenge to public health, taking into consideration that there is no unique separate health program in India to take care of such problems. Rise in geriatric population leads to increase in number of women in menopause. An understanding of menopausal symptoms experienced by these women is essential for designing the appropriate health care delivery services and to ensure an easy transition in peri-menopausal period. There are few studies from the Indian region regarding the health profile of post-menopausal women. This study is an attempt to identify various demographic parameters like mean age at menarche, mean age at menopause, etc., as well as to evaluate the post menopausal symptoms of women aged between 40 and 65 years.

Method :

Ethical approval was obtained from Sumandeep Vidyapeeth institution ethical committee before commencement of this research study. The present community based cross sectional study was conducted among post menopausal women of the urban area of Gujarat. The study has been conducted in a 6 month period from April 2017 to October 2017. A postmenopausal woman aged between 40 to 65 years has been taken as study unit. Women who are not willing to participate, having past history of hysterectomy, women who are taking hormonal replacement therapy and critically ill women are excluded from the study.

The sample size was calculated at a 95% confidence interval and 20% allowable error. If we take P as 50 than sample size for the present study was 96. Total 100 participants who fulfill the inclusion and exclusion criteria were included in the study.

We have collected data from four different urban sites of Gujarat. These are Surat, Ahmedabad, Palanpur and Amreli. All four sites represent different part of Gujarat.

From each site one ward was selected randomly by lottery methods and from each selected ward 25 eligible women were identified by systemic random sampling methods for data collection. The women were explained that the information given by them would be kept confidential. The identified women were interviewed in privacy. From every participant written consent was obtained for the study. Data collected in pre tested, structured questionnaire by personal interview.

Collected data compiled in Microsoft office Excel 2007 format. Data was processed using Epi info statistical software. Descriptive and analytical statistical methods were used for the preparation of results. Data is presented in tabulated as well as graphical format.

Result:

Out of 100 participants majority of women were illiterate (24%), or having either primary (18%) or secondary (21%) education. 19% of study participants were either graduate (11%) or postgraduate (8%). 88 % of study participant are married while 6% study participants are widowed. 3% were unmarried and 2% were divorcee. [Table 1]

The median age of study participants are 52 years. The median age of menopause and menarche among participants was 45 and 13 respectively. On and average a woman was remain in reproductive age for around 32 years. There is no agreement on the average age at which Indian women attain menopause, a wide range from 35 to 56 years of age was found as an age of menopause. The age of

Table 1 : Socio demographic profile of study participants

Variable		No.	Percentage (%)
Education	Illiterate	24	24%
	Primary	18	18%
	Secondary	21	21%
	Higher secondary	18	18%
	Graduate	11	11%
	Post Graduate	8	8%
Marital Status	Married	88	88%
	Widow	6	6%
	Unmarried	3	3%
	Divorcee	2	2%
	Separated	1	1%

Table 2 : Age profile of study participants

Variable	Mean	Median	Range
Age	52.65 ±6.83	52.00	40 - 65
Age at menarche	13.86 ±1.50	13.00	11 - 18
Age at marriage	20.64 ± 3.03	20.00	15 - 35
Age at menopause	44.69 ± 4.94	45.00	35 - 56

marriage and age of menopause had a poor positive correlation ($r = 0.154$), and The age of menarche and age of menopause had a poor negative correlation ($r = -0.048$). [Table 2]

Among study participants, those who conceived had a higher mean age of menopause compared to those who not. Those women who conceive one time had the highest mean age of menopause (48 yrs). Those who are never conceived had a mean age of 41 years. [Figure 1]

The most common symptoms present among menopausal women were fatigue (73%), irritability (72%), weight gain (61%), headache (59%), anxiety (52%), Joint pain (51%), insomnia (51%). These symptoms were present among more than 50% of

study participants. The Vasomotor symptoms like hot flushes, Night sweat and urinary incontinence were present in 41%, 35% and 23% of study participants respectively. [Figure 2]

The median age of menopause is 45 years. Here we compare the frequency of symptoms among women who attain menopause earlier (less than median age, ≤ 45 years) compared to those women at a late age (more than median age, > 45 years of age). Those women who attained menopause at ≤ 45 years of age, having more frequent all menopausal symptoms compared to those women who attained menopause > 45 years of age except weight gain and joint stiffness. [Figure 3]

Figure 1: No. of gravid status wise mean age of menopause among study participants

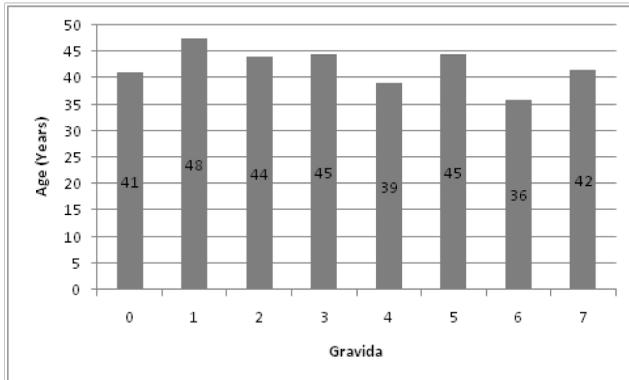


Figure 2: Post menopausal symptoms among participants

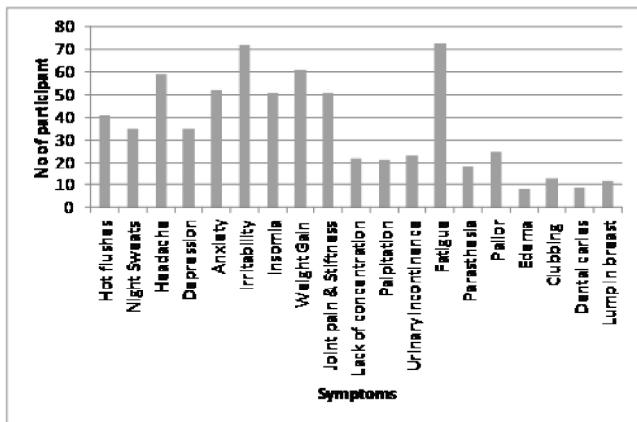
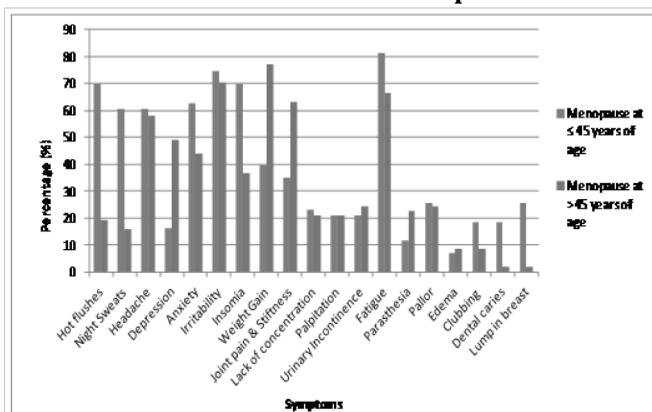


Figure 3: Comparison of post menopause symptoms at the attainment of menopause



Discussion :

Menopause is the cessation of menstruation, this stage is determined by the decrease production of estrogen into the body. The age of attainment of menopause is determined by various factors like race, ethnicity, lifestyle factors and demographic factors.^[10] The age at menopause was attain is different in Asian and western countries, also in urban and rural population. Our study resulted, 45 as the median age for attainment of menopause. A study conducted by Ankita Goyal et al shows that mean age of menopause among urban women of Allahabad was 46.32 years.^[11] The median age of menopause among white women from industrialized countries ranges between 50 and 52 years.^[10] A study was conducted by G Ganitha et al among women of rural area Tamilnadu documented that, the mean age of attaining menopause was 45.75 ± 3.83 years. The menopause starts between age 38 years to 53 years. The finding are well correlated with our findings, in India the menopause was attain in comparatively at low age that will lead to prolongation of post menopausal period.^[5] Increasing life expectancy will lead to spend more period of life in post menopausal period among women. Early menopause may be a risk factor for earlier mortality from diseases related to decreased estrogen levels and may promote increased incidence of osteoporosis, heart diseases, diabetes, hypertension and breast cancer.^[12] Women from Rural area attain menopause at late compared to women of urban area. Similar to result document in this study, study conducted by Gold et al also reported that age of menarche is not consistent with the age of menopause.^[10]

Natural menopause was attain late with increasing parity. Pregnancy is an anovulatory phase that decreases the rate of loss of oocyst. Systemic review documented that Increasing parity, has also been associated with later age at natural menopause, that well correlate with the theory that natural menopause occurs after oocytes have been sufficiently depleted.^[10] Study conducted by Romita

Potsangbam et al in Porompat and Manipur area shows that women with high parity >2 has earlier onset of menopause as compared to those having parity of ≤ 2).^[13] Another study of Danish population observed a trend of increasing age at menopause with increasing number of live births.^[14] Inverse to that our study document no consistent trend of the increasing parity with increasing age of menopause. But those who conceive at least one time had a late age of menopause compared to nulligravida women. That might be influencing of other factors like use of oral hormonal pills, nutrition, systemic disorder etc.

Studies conducted in three different part of India (Jamnagar, Kerala and Allahabad) reported that the most common symptoms among post menopausal women are musculo skeleton problems (joint pain, backache), emotional problems (crying spells, depression, irritability), lethargy, burning maturation and forgetfulness.^[2,11,15] That is very consistent with result of this study. The most common symptoms documented among menopausal women in this study were fatigue (73%), irritability (72%), weight gain (61%), headache (59%), anxiety (52%), Joint pain (51%), insomnia (51%).

In a study by Yahya and Rehan^[16], prevalence of hot flushes and night sweats was 32%, which was lower than our study. Study conducted by Ankita goyal et al found that the prevalence of vasomotor symptoms was 34.5% and 39.0% in rural and urban areas respectively.^[11] That was nearly similar to our study result. Another study conducted in rural Kerala shows very high prevalence of classical vasomotor symptoms like hot flushes (46.7%) and sweating at night (50%).^[9] Most of the symptoms at menopause were related with decreased level of estrogen.

Conclusion:

The women in Gujarat area attain menopause at a very early age. Very high prevalence of the various symptoms associated with the post menopausal syndrome documented in current study. The post-menopausal women of Gujarat suffer from various

physical, psychiatric and vasomotor signs and symptoms. The most common symptoms are physical and psychological in nature and some time may be misinterpreted as symptoms of systemic disorders. Early the menopause more frequent are the symptoms irrespective of severity.

Recommendation:

As life expectancy and population of post-menopausal women increases, efforts are needed to educate them and make them aware about various menopausal symptoms. There is a need to address the post menopausal women's group separately as there hasn't been a specific health program for those women yet. Preventive strategies also need to be disseminated well in those women who are approaching their menopause, so that the frequencies and the severity of such symptoms could be minimized. Postmenopausal women should be sensitized for availing the health facilities for their health problems information, education and communication (IEC) and behaviour change communication (BCC).

Declaration:

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Conflict of Interest: Nil

References :

1. PResearch on the menopause - ScienceDirect [Internet]. [cited 2018 May 9]. Available from: <https://www.sciencedirect.com/science/article/pii/S0378512295009671>
2. Amrita S, Pradeep P, Kakoli G, Sudip B, Naresh M, Sudha Y, et al. A Study on Health Profile of Post-menopausal Women in Jamnagar district, Gujarat. *J Res Med Dent Sci*. 2017 Mar 25;2(2):25-9.
3. Census of India Website: Office of the Registrar General & Census Commissioner, India [Internet]. [cited 2018 Apr 25]. Available from: <http://www.censusindia.gov.in/2011census/C-series/C-13.html>
4. Kumari M, Stafford M, Marmot M. The menopausal transition was associated in a prospective study with decreased health functioning in women who report menopausal symptoms. *J Clin Epidemiol*. 2005 Jul;58(7):719-27.
5. Ganitha G, Premlatha P, Kannan I. A Study of the Age of Menopause and Menopausal Symptoms among Women in a Rural Area of Tamil Nadu, India. *jsafoms*. 5(2):87-91.

6. Nayak G, Kamath A, Kumar P, Rao A. A study of quality of life among perimenopausal women in selected coastal areas of Karnataka, India. *J-Life Health*. 2012;3(2):71-5.
7. Burger H, Woods NF, Dennerstein L, Alexander JL, Kotz K, Richardson G. Nomenclature and endocrinology of menopause and perimenopause. *Expert Rev Neurother*. 2007 Nov;7(11 Suppl):S35-43.
8. Rahman SASA, Zainudin SR, Mun VLK. Assessment of menopausal symptoms using modified Menopause Rating Scale (MRS) among middle age women in Kuching, Sarawak, Malaysia. *Asia Pac Fam Med*. 2010 Feb 22;9(1):5.
9. Subrahmanyam N, Padmaja A. Menopause Related Problems among Women in a Rural Community of Kerala. *ijird*. 5(1):61-4.
10. Gold EB. The Timing of the Age at Which Natural Menopause Occurs. *Obstet Gynecol Clin North Am*. 2011 Sep;38(3):425-40.
11. Goyal A, Mishra N, Dwivedi S. A comparative study of morbidity pattern among rural and urban postmenopausal women of Allahabad, Uttar Pradesh, India. *Int J Res Med Sci*. 2017 Jan 23;5(2):670-7.
12. Perimenopausal risk factors and future health. *Hum Reprod Update*. 2011 Sep 1;17(5):706-17.
13. Age at Menopause and its Determinants [Internet]. [cited 2018 May 14]. Available from: https://www.researchgate.net/publication/309450711_Age_at_Menopause_and_its_Determinants
14. Gold EB, Bromberger J, Crawford S, Samuels S, Greendale GA, Harlow SD, et al. Factors Associated with Age at Natural Menopause in a Multiethnic Sample of Midlife Women. *Am J Epidemiol*. 2001 May 1;153(9):865-74.
15. Borker SA, Venugopalan PP, Bhat SN. Study of menopausal symptoms, and perceptions about menopause among women at a rural community in Kerala. *J-Life Health*. 2013;4(3):182-7.
16. Yahya S, Rehan N. Age, pattern and symptoms of menopause among rural women of Lahore. *J Ayub Med Coll Abbottabad JAMC*. 2002 Sep;14(3):9-12.