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Section A – Basic Sciences; Section B – Applied and Technological Sciences; Section C – Allied Sciences

Available online at www.ijit.net.**Research Article****HEALTH RELATED COMPLICATIONS IN MENOPAUSAL WOMEN OF NORTH KARNATAKA****CHANDRAMATI J. ROKHADE^{1*}, KHYRUNNISA BEGUM, DHIRAJ J. TRIVEDI**

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ABSTRACT

Age at natural menopause may not be same for the entire region. An attempt has been made to define the mean age at natural menopause and health complications during menopause. Cross-sectional study by random sampling conducted at S.D.M. Medical College and Hospital, Dharwad. Data was collected by random sampling, 115 women aged 51 to 55 years were included in the study group. In depth interview was conducted for collecting information about their sociodemographic information, anthropometry, health problems and symptoms perceived by them. Statistical analysis by SPSS ver. 16.0. The mean age at natural menopause among Karnataka women was 45±9.12year. The incidence of obesity was 43.5%, followed by hypertension -33.0%; type-II diabetes- 19.1% among the study group. The prominent symptoms reported by post menopause women were vasomotor symptoms, psychiatric symptoms, bladder problems and other somatic symptoms. Age at natural menopause in women of North Karnataka is early and the health complications resulted may be the result of hormonal imbalance.

KEY WORDS: *Natural menopause, Health complications, Symptoms, Hormone imbalance.*

INTRODUCTION

Menopause is the most striking physiological event occurring during the middle age in women and represents the end of woman's reproductive life. There are two important milestones in women's life viz. menarche, the start of menstrual cycle at around teenage and menopause, cessation of menstruation around 50 years. Menopause is a physiological phenomenon occurring in all females but will not be same for all ethnic groups [1]. Menopause is characterized endocrinologically by decreasing fertility and clinically by alterations in the menstrual cycle intervals. Natural menopause is recognized by amenorrhea occurred for 12 consecutive months without any obvious physiological or pathological cause [2]. Natural menopause (NM) reported to occur between 45 and 55 years of age worldwide [2][3]. It occurs gradually and it indicates the transition from the reproductive to the Non-propagative era of a woman's life [4].

With the increase in life expectancy, women spends significant part of her life in postmenopausal state, number of menopausal women in the world is slowly increasing and predicted to reach 1200 million by

2030[5]. A total of 130 million Indian women are expected to live in post-menopausal state by 2015. Menopause though a physiological phenomena, is associated with variety of health related complications, ranging from mild obesity to severe arthritis and psychological disorders. Recognition of menopause is an important issue in women's health care which is ignored at many times in Indian Society. This Physiological condition has different impact in Indian society as compared to developed Western countries. Hence the present study was undertaken to recognize health complications during menopause in women's life and to create awareness about possible health complications in post-menopausal life.

MATERIALS AND METHODS

A cross-sectional study was conducted on 115 post-menopausal women attending dietetics OPD of our Hospital and also who were willing to participate. An informed written consent was taken from the subjects and the study was approved by Institutional Ethical Committee.

Inclusion Criteria: Women above 50 years of age.

Exclusion Criteria: Women having Diabetes Mellitus Type I, any hormonal imbalance, ovarian problems and undergone hysterectomy were excluded from the study population.

A structured questionnaire was developed to collect necessary information and the data was analyzed by using SPSS (16.0)

RESULTS

Table 1: Socio- Demographic Profile of Post Menopausal Women.

Sr.No.	Variables	F	%
I	Education		
a	Illiterate	39	33.90
b	Literate	65	66.08
c	Graduates	11	14.47
II	Occupation		
a	Housewife	104	90.40
b	Working women	11	9.60
III	Family size		
a	Small (upto4)	62	53.90
b	Medium (5to7)	38	33.90
c	Big(>7)	15	13.00
IV	Type of family		
a	Nuclear	98	85.20
b	Joint	17	14.80

Table 1 reveals the Socio-demographic profile of the study group. Out of 115 women 39(33.9%) were illiterate and 76(66.08%) were literate. Out of 76 literates, only 11(14.47%) have graduate degree whereas 65(85.5%) had only primary and secondary education.

Among 115 women, 104(90.4%) were housewives whereas 11(9.6%) were working women. 85.2% of total subjects had nuclear family whereas 14.8% were living in joint family.

Table 2: Health Status of Post Menopausal Women.

Sr.No	Health Problems	Frequency	%
1	Obesity	50	43.50
2	Hypertension	38	33.00
3	D.M- II	22	19.10
4	CVD	7	6.10
5	Arthritis	9	7.80

Table 2 details health complications of menopause women, among the study group 43.50% were obese, 33.10% were having hypertension, 19.10% were suffering from DM Type-II and prevalence of CVD and arthritis were 6.10% and 7.8% respectively.

Table 3: Natural Age at Menopause.

Sr.No	Age of Menopause	F	%
1	Not attained	4	3.50
2	<40	18	15.60
3	41- 50	69	60.00
4	Above 50	24	20.90
Mean±SD	45±9.12		

Table 3 represents the mean age at natural menopause. In the present study population the mean age at natural menopause was 45±9.12 yrs. Among study group 60% of the women attained menopause during the age 41-50yrs, 20.90% attained above the age of 50yrs whereas 15.60% below the age of 49yrs. Only 3.50% not yet attained menopause even at the age of 50 yrs.

Table 4: Symptoms Perceived by Post-Menopausal Women.

Sr.No	Symptoms		F	%
I	Vasomotor	Hot flush	14	12.20
		Night sweats	10	8.70
		Headache	42	36.50
II	Psychiatry	Insomnia	71	61.70
III	Urinary	Frequent urination	44	38.30
		Urge incontinence	33	28.70
		Stress incontinence	26	22.60
IV	Somatic symptoms	Achy joints	59	51.30
		Pain in knees	76	66.10
		Pain in back	56	48.70

Table 4 shows the symptoms perceived by post-menopausal women. Among the study group vasomotor symptoms i.e headache was reported highest (36.50%) followed by hot flushes (12.20 %) and the lowest was night sweats (8.70 %). The psychiatric problems like insomnia were reported to be highest (61.70 %). Some women suffered from bladder problems like frequent urination (38.30 %), urge incontinence (28.70%) and stress incontinence (22.60%). Other somatic symptoms reported by women were pain in knees (66.10%), achy joints (51.30 %) and pain in lower back (48.70%).

DISCUSSION

The study population consists of literates and housewives living in nuclear family. In the present study the prevalence of obesity was found to be highest followed by hyper tension, Type II DM, arthritis and CVD in decreasing order. It is known

fact that menopause is associated with hormonal changes that leads to weight gain or onset of obesity. Similar observations were reported by previous studies [6][3].

It is assumed that the age at natural menopause is influenced by various bio-social factors like body size, body shape, and age at menarche, income, education and dietary habits. [5]. In Indian population, age at natural menopause reported was different for different ethnic groups [1]. According to Sidhu and Sidhu [7], age at natural menopause ranged from 43 to 49 yrs for developing countries[8].Richardson in 1993[10] and WHO in 1996[2] reported that the age at natural menopause among the women of developed country is 51 years. In our study mean age at natural menopause was 47 yrs which correlates with the study[7].Education, physical activity and food habits [5] may be the associated factors.Pain in knee which stand second among the complains in present study group may be the out shoot of obesity.

Second major complaint from the group is found to be insomnia which may be related with decreased level of oestrogen in menopause women.Our findings correlates with the study conducted by the author [9].

CONCLUSION

Looking at the result of demographic data and present literature we conclude that hormonal imbalance could be one of the factors causing postmenopausal health complications.Oestrogen has an important role and hence estimation of oestrogen level in the study population may enlighten our present understanding of health complications of post-menopausal women.

We would like to admit since this study was performed on small population, 115 subjects without estimation of Oestrogen level, study on large number with estimation of oestrogen level is required to have better understanding about the role of estrogen in post-menopausal women.

REFERENCES

1. *Sudha S, Vishal RT and Annil M. Menopausal symptoms in urban women. JK Science. 2007;9(1):13-17*
2. *WHO (World Health Organization Scientific Group). Research on the menopause. WHO Technical Report Series, 886. Geneva: World Health Organization.1996.*
3. *Narinder M, Meenu A, Amrita B. Health issues of menopausal women in North India. J Mid-life Health. 2012; 3(2):84-87.*
4. *Ruma D, Lawrence D, Anuradha R, Shivani R, Rashmi MR. J Clinical and Diagnostic Research. 2012; 6(4): 597-601.*
5. *Pathak RK, Purnima P. Age at menopause and associated bio-social factors of health in Punjabi women. The open anthropology Journal. 2010; 3:172-180.*
6. *Kawaljit KK, Gurucharan K, Sharda S. Prevalence of obesity in working premenopausal and postmenopausal women of Jalandhar District, Punjab. J Hum Ecol, 2010; 29(1): 57-62.*
7. *Sidhu S, Kaur A, Sidhu M. Age at menopause in educated women of Amritsar (Punjab). J.Hum.Ecol, 2005; 18(1):49-51.*
8. *Sidhu, S and Sidhu L.S. Age at menarche and its association with stature and weight in Jat Sikh and Bania females of Punjab.Ind. J. Phys. Anthropol Hum Genetics,1987;13:237-242*
9. *Sagdeo, M.M and Arora D. Menopausal symptoms: A comparative study in Rural and Urban Women.JK Sciences 2011; 13(1):23-26.*
10. *Richardson S.J. The biological Basis of Menopause. Baillier's Clinic. Endocrinol Metab 1993; 7:1-16.*
