

Study of menopausal symptoms among peri and postmenopausal women attending NMCTH

R Marahatta (Khanal)

Department of OBGYN, Nepal Medical College Teaching Hospital, Kathmandu, Nepal

Corresponding author: Dr. Rita Marahatta (Khanal), Associate Prof. Department of OBGYN, Nepal Medical College teaching Hospital, Kathmandu, Nepal; e-mail: ritakhanal2@yahoo.com

ABSTRACT

This is a prospective study conducted in the department of OBGYN, Nepal medical college teaching hospital (NMCTH), Kathmandu Nepal. The main objective of this study being to find out the major health problem in mid-life of female, to see the age of menopause and to see prevalence of menopausal symptoms and common menopausal symptom among Nepalese women. Total 500 women were included in the study with effect from 1st of January 1012 till 500 respondents were interviewed, it took almost 10 months and ended on November 1012 for the study. Age wise all women from 45 years to 60 years are included, surgical menopause, diagnosed Hypertensive, diabetes and thyroid disorder were excluded from the study. Informed consent was taken and standard questionnaire were administered to women after history and clinical examination. Data were collected and analysed. The mean age of menopause found to be 49.9% with urinary tract infection being the major clinical diagnosis and physical menopausal symptoms being the commonest. About 20% of respondent had MRS (menopausal rating scale) score more than 16.

Keywords: Menopausa, MRS, mid-life, age at menopause, Physical symptom.

INTRODUCTION

Menopause is the permanent cessation of menstruation resulting from the loss of follicular activity of the ovaries. It is a stage when the menstrual cycle stops for longer than 12 months and there is a drop in the levels of estrogen and progesterone, the two most important hormones in the female body (World Health Organization- WHO 1996).¹ The onset of this physiological development not only marks the end of women's reproductive function but also introduces them to a new phase of life. Middle age is one of the turning points in one's life as it brings along many changes. It roughly starts in the early 40s, when for most of the people, it is the "best" period in their life when their achievement is at the highest point. As it is a midway between the challenges of adulthood and despair of old age, comes the change – menopause in women and during which lives take a compulsory change of direction. For women, middle age includes the gradual winding down of the reproductive system and the ending of the childbearing years. Menopause is derived from the Latin words *meno* (month) and *pausia* (halt, stop) it implies the cessation of monthly period, marks the end of a woman's period of natural fertility. Actually it is not merely the end of menstruation but also is an inevitable part of aging. Although menopause is a universal phenomenon, there is a considerable variation among women regarding the age of attaining menopause and the manifestation of menopausal signs and symptoms. The problems related to menopause and

those that occur in the post-menopausal period have received a little attention. Worldwide, the estimates for the median age at menopause range from 45 to 55 years²⁻⁷ with women from Western countries having a higher menopausal age compared to women from other parts of the world.⁸⁻¹⁰ The menopause rating scale (MRS) is a health-related quality of life, scale developed in Germany (by The Berlin Center for Epidemiology and Health Research) in the early 1990s. Its intent was to measure the severity of aging-symptoms and their impact on the quality of women's lives. The MRS is well accepted internationally. The MRS is composed of 11 items and was divided into three subscales:

(a) somatic-hot flushes, heart discomfort/palpitation, sleeping problems and muscle and joint problems (4 items) (b) psychological-depressive mood, irritability, anxiety and physical and mental exhaustion (4 items) and (c) urogenital-sexual problems, bladder problems and dryness of the vagina (3 items) Each of the eleven symptoms contained a scoring scale from "0" (no complaints) to "4" (very severe symptoms). Total score being 44 and 16 is taken as cut off score in terms of actual sufferer who need help of gynecologist.¹¹

DEFINITION

There are few confusing terminology which are used in the relation to menopaous or end of reproductive life. Here are the definition given by international society of menopause and WHO.^{1,12} **Menopause** (natural

menopause) – the term natural menopause is defined as the permanent cessation of menstruation resulting from the loss of ovarian follicular activity. Natural menopause is recognized to have occurred after 12 consecutive months of amenorrhea, for which there is no other obvious pathological or physiological cause. Menopause occurs with the final menstrual period (FMP) which is known with certainty only in retrospect a year or more after the event. An adequate biological marker for the event does not exist. (Source: WHO)

Perimenopause – The term perimenopause should include the period immediate prior to the menopause (when the endocrinological, biological, and clinical features of approaching menopause commence) and the first year after menopause. Per menopause is defined by the World Health Organization and the North American Menopause Society as the two to eight years preceding menopause and one year following final menstruation.

Menopausal transition – the term menopausal transition should be reserved for that period of time before the FMP (final menstrual period) when variability in the menstrual cycle is usually increased. This term can be used synonymously with "premenopause" although this latter term can be confusing and preferably should be abandoned. [Source: WHO]

Climacteric – The phase in the aging of women marking the transition from the reproductive phase to the non-reproductive state. This phase incorporates the perimenopause by extending for a longer variable period before and after the menopause. [Source: IMS].¹²

Climacteric syndrome – the climacteric is sometimes, but not necessarily always, associated with symptomatology. When this occurs, it may be termed the "climacteric syndrome." [Source: IMS]¹²

Premenopause – the term premenopause is often used ambiguously to refer to the one or two years immediately before the menopause or to refer to the whole of the reproductive period prior to the menopause. The group recommended that the term be used consistently in the latter sense to encompass the entire reproductive period up to the FMP. [Source: WHO]

Post menopause – the term post menopause is defined as established menopause having amenorrhoea for one year dating from the FMP, regardless of whether the menopause was induced or spontaneous. [Source: WHO]

Premature menopause – ideally, premature menopause should be defined as menopause that occurs at an age less than two standard deviations below the mean established for the reference population. In practice, in the absence

of reliable estimates of the distribution of age at natural menopause in populations in developing countries, the age of 40 years is frequently used as an arbitrary cut-off point, below which menopause is said to be premature. [Source: WHO]

Induced menopause – the term induced menopause is defined as the cessation of menstruation which follows either surgical removal of both ovaries (with or without hysterectomy) or iatrogenic ablation of ovarian function (e.g. by chemotherapy or radiation). [Source: WHO]

MATERIALS AND METHODS

This is a prospective study conducted in department of Obstetrics and Gynecology, Nepal Medical College Teaching Hospital Kathmandu, Nepal. All patients of age 45 years to 60years presenting to the outpatient department of the hospital were interviewed with standard questionnaires. Since this is a hospital based study, focus was kept on the chief complaint of the patient with which she presented to hospital and with her verbal consent, questionnaire were administered to her regarding menopausal symptoms. Patients with hysterectomy, Thyroid disease, diabetes and neurological problems were excluded from the study thinking that these diseases sometimes mimic some of the symptoms of menopausal transition. Women with surgical menopause were also excluded from the study. Direct questions were subjected to the patients regarding the menopausal symptoms to evaluate the severity of problems using menopausal rating scale (MRS). This study was started from 1st of Jan 2012 and was continued till 500 patients were interviewed, It took almost 10 months, ending on middle of November 1012. Patients were selected randomly from out patient department .Data were collected, tabulated and analysed.

OBJECTIVES

The main objectives of this study are

To find the age at menopause among Nepalese women.

To find out the spectrum of gynecological problem in women 45-60 years of age presenting to NMC.

To find out the most common postmenopausal symptom among Nepalese women.

RESULTS

Total women included in the study were 500 with mean age being 50.5 years with minimum age 45 and maximum age being 60 years. This age group was chosen because menopausal symptoms start appearing as early as 2-8 years prior to onset of menopause and

Table-1: Respondent's demographic characteristics

Characteristics	n. (%)
A. Age in years	
45-50	255 (51%)
51-55	130 (26%)
56-60	115 (23%)
B. Marital status	
Married	488 (97.6%)
Unmarried	12 (2.4%)
C. Educational Level	
Illiterate	165 (33%)
primary Level	223 (44.6%)
Secondary and above	112 (22.4%)
D. Parity	
Nulliparous	15 (3%)
primipara	7 (1.4%)
Multipara	478 (95.6%)
E. Menopausal Status	
Peri menopausal	236 (47.2%)
Post menopausal	264 (52.8%)

continued for few years after established menopause. Majority of women were married accounting 97.5%. Regarding educational level 44.6% said that they had primary level education and only 22% had secondary and above level education. Obstetric history was also analysed and found that 97% of total were parous with more multipara than primipara. About 47.2% of women were perimenopausal characterized by age 45 years and above with having regular orirregular menstruation but not having complete cessation of menstruation for at least one year (established menopause) and 52.8% were menopausal (Table-1). Mean age of menopause was 49.9 years.

Since this study is Hospital based study, women who came to hospital with some health problems were included and interviewed so variety of clinical diagnosis was made after clinical examination. Major health problem was found among middle aged female was urinary tract infection accounting 28%, this result was not culture proven UTI, it was diagnosed on clinical background because all respondents did not turn up with reports. Second common diagnosis made was varying degree of genital prolapse as simple as having first degree to as severe as procidentia accounting 20%. Abnormal uterine bleeding (AUB) were equally common problem among middle aged female accounting about 15%. Five women out of 500 accounting 1% were having biopsy proven carcinoma cervix in various stage of disease. Fibroid uterus was also one of the common diagnosis and other in lesser number (Table-2). Non of women came with isolated any of the item of menopausal rating

Table-2: Clinical diagnosis of respondent

Diagnosis	n. (%)
1. UTI	140 (28%)
2. Genital prolapse	103 (20.6%)
3. AUB	72 (14.4%)
4. Fibroid	60 (12%)
5. Ovarian Neoplasia	28 (5.6%)
6. CIN	18 (3.6%)
7. Cervical polyp	17 (3.4%)
8. Anemia	12 (2.4%)
9. Carcinoma Cervix	5 (1%)
10. Others	45 (9%)
(PMB*, Vulval leukoplakia, atrophic vaginitis, Gynae NAD)	

*Post menopausal bleeding

scale and non of them are on hormone replacement therapy (HRT).

There are 11 menopausal rating scale items which were asked to all respondents directly and analysed to see what are the problems which are really disturbing the individual. Among perimenopausal group physical symptoms like bone and joint pain, irritability and physical and mental exhaustion were the common problems accounting for more than 80% of respondents. In menopausal group sleep disturbances, joint pain and decrease libido were the major problems accounting for more than 70% (Table-3). Regarding the scoring of MRS 15% of perimenopausal group were having real problem with score more than 16 which is the cut off point to see

Table-3: International version of MRS items

MRS Items	Perimenopause	Post menopause	
	n. (%)	n. (%)	Total %
A. Physical (4)			
Vasomotor	100 (42.37%)	97 (41.1%)	39.4%
Bones and Joint	208 (88%)	200 (75%)	81%
Sleep Disturbance	200 (84 %)	205 (77%)	81%
Heart (Palpitation)	125 (53%)	87 (33%)	42 %
B. Psychological (4)			
Depressive mood	72 (30.5%)	100 (38%)	34%
Irritability	201 (85.16%)	92 (35%)	59%
Anxiety	100 (42.3%)	76 (29%)	35%
Exhaustion (physical /mental)	200 (84.75%)	200 (75%)	80%
C. Urogenital/Sexual (3)			
Urinary problem	108 (45.7%)	178 (67%)	57%
Dryness of vagina	100 (42.3%)	200 (76%)	60%
Decrease libido	150 (63.5%)	200 (76%)	70%

Table-4: MRS scoring

Menopausal status	Score <16	>16	Total
Perimenopausal	199 (84.3%)	37 (15%)	236
Post Menopausal	207 (78.4%)	62 (23%)	264
Total	401 (80.2%)	99 (19.8%)	500

the gynecologist for needful. Among post menopausal group 23% of them had MRS score more than 16 and in total about 20% of respondents had significant score (>16) (Table-4)

DISCUSSION

Our study showed that maximum number of women were diagnosed as having UTI, this is not culture proven diagnosis. The reason of high prevalence may be due to the fact that all women having lower abdominal pain, if no pathology is detected on clinical examination, we suspect UTI and send urine for culture and sensitivity, keeping provisional diagnosis of UTI. Second common diagnosis is genital prolapse is again due to the fact that Nepal government has made the service free for genital prolapse operation so various health camps are being organized to find out the cases and brought to hospital for surgery so we don't get similar prevalence throughout the year.

The present study records the mean age of menopause being 49.9 years with lowest age 41.5 years and highest being interestingly 58.3 years. Exactly the same age was recorded in another study conducted in Kaski District of the same country in 2008 by Chuni *et al.*¹³ A comparative study done in India to see the mean age at menopause in rural and urban area, the mean age was found to be 46.14 ± 4.47 years, with 4% of the women attaining menopause before the age of 40.¹⁴

Although our result slightly higher than studies done in Peninsular Malaysia which reported mean age of menopause 49.4 years and from studies done in Thailand (48.7 years), Singapore (49.1 years) and other studies on Asian and Caucasian women, and lower than another studies of Malaysia with mean age of menopause being more than 50 years with mean being 51.3 years.^{11,15-21}

In another study done to see geographic variation on age of menopause and menopausal symptoms showed the median age at menopause in Europe ranges from 50.1 to 52.8 years, in North America from 50.5 to 51.4 years, in Latin America from 43.8 to 53 years, and in India ranges from 42.1 to 49.5 years. There are wide geographical differences in the prevalence of menopausal and some differences in the age of onset of menopause. Both in Asia and Latin America, women of

poorer socioeconomic status have significantly earlier onset of menopause.²²

There is great variation among countries in the proportion of women reporting hot flashes. Estimates within countries also vary widely. Studies of Asian populations tend to report the lowest rates. Studies in Thailand and Japan have reported rates of 6% and 12% respectively, and studies in Africa have reported rates of 30% to 80%. Truly comparable studies in non-Caucasian populations are lacking.¹⁹

The frequency of vasomotor symptoms varies widely depending on the geographical region, selection of criteria, and method of symptom identification by level of awareness about the symptoms. The prevalence of such symptoms ranges from 74% of women in Europe, 36–50% in North America, 45–69% in Latin America and 22–63% in Asia, as reported in different large epidemiological studies.²² Our result also falls in this range. In our study women were found to have more of physical symptoms than psychological symptoms. On questioning they expressed themselves as joint pain, sleep disturbances and some of urinary problems as disturbing symptoms in comparison to vasomotor symptoms, though they are present in milder severity but not so much bothered by these problems.

Our study showed the frequency of menopausal symptoms very less than other studies done in other parts of the world (turkey) but same as study done in Asian region. Studies on Asian women from different ethnic backgrounds have reported lower symptom prevalence of between 10% and 50%.²³ But in studies done in Turkey showed a prevalence of 35%–90%.²⁴⁻²⁷ A study done to compare symptoms peri and post menopausal women. The symptom of "hot flashes" was the highest scored symptom in both the peri- and postmenopausal group, a possible explanation is that this symptom is sensitive to early decline in estrogen levels.^{28,29}

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