



TO STUDY THE TYPE OF MENOPAUSE AND HEADACHE CHARACTERISTICS AMONG POST MENOPAUSAL WOMEN

S. Prasanna devi

Guest lecturer, Department of Home Science

Queen Mary's College, Chennai, Tamil Nadu, India.

Abstract: This study was undertaken to find out if the menopause type had any effect on Headache characteristics. For this study 300 samples were selected and details were collected through Interview schedule method. The study concluded that there was a significant association between duration of headache and type of menopause among post menopausal women and there was a significant association in the severity of headache and type of menopause.

KEY WORDS: WOMEN, POST MENOPAUSE, HEADACHE, MENOPAUSE TYPES, HORMONES

INTRODUCTION

The normal female life cycle is associated with a number of hormonal milestones: menarche, pregnancy, contraceptive use, menopause, and the use of replacement sex hormones. Menarche marks the onset of menses and cyclic changes in hormone levels. Pregnancy is associated with rising noncyclic levels of sex hormones, and menopause with declining non cyclic levels.

The menstrual cycle is the result of a carefully orchestrated sequence of interactions between the hypothalamus, pituitary, ovary, and endometrium, with the sex hormones acting as modulators and effectors at each level. Estrogen and progestins have potent effects on central serotonergic and opioid neurons, modulating both neuronal activity and receptor density. The primary trigger of Menstrually-related migraine (MM) appears to be the withdrawal of estrogen rather than the maintenance of sustained high or low estrogen levels.

However, changes in the sustained estrogen levels with pregnancy (increased) and menopause (decreased) appear to affect headaches. Headaches associated with OC use or menopausal hormonal replacement therapy may be related, in part, to periodic discontinuation of oral sex hormone preparations. The treatment of migraine associated with changes in sex hormone levels is frequently difficult and the patients are often refractory to therapy. Based on what is known of the pathophysiology of migraine the authors have attempted to provide a logical approach to the treatment of headaches that are associated with menses, menopause, and OCs using abortive and preventive medications and hormonal manipulations. Considerable evidence suggests a link between estrogen and progesterone, the female sex hormones, and migraine (Silberstein, 2000).

This study reviewed the frequency and type of headache syndromes associated with menopause, to review the evidence for specific treatments for headache associated with menopause, and to provide management recommendations and prognostic guidance.

They reviewed both clinic- and population-based studies assessing headache associated with menopause. Headache in menopause is less common than headache at earlier ages but can present a unique challenge. Migraine phenotype predominates, but presentations can vary or be due to secondary causes. Other headache types, such as tension-type headache (TTH) and cluster headache (CH) may also be linked to or altered by hormonal changes

Women with surgical menopause often experience a worse course of disease status than those with natural menopause. Biological mechanisms are incompletely understood, and there is a lack of consensus on how to define and classify headache in menopause ([Lauritsen et al., 2018](#)).

Evidence suggests that migraine activity is influenced by hormonal factors, and particularly by estrogen levels, but relatively few studies have investigated the prevalence and characteristics of migraine according to the menopausal status. Menopause etiology may play a role in migraine evolution during the menopausal period, with migraine improvement more likely occurring after spontaneous rather than after surgical menopause.

Postmenopausal hormone replacement therapy has been found to be associated with migraine worsening in observational population-based studies. The effects of several therapeutic regimens on migraine has also been investigated, leading to nonconclusive results. To date, no specific preventive measures are recommended for menopausal women with migraine. There is a need for further research in order to clarify the relationship between migraine and hormonal changes in women, and to quantify the real burden of migraine after the menopause. Hormonal manipulation for the treatment of refractory postmenopausal migraine is still a matter of debate ([Patrizia et al., 2015](#)).

Lieba abd Wober, 2011 studies the relation between sex hormones and migraine leading to the definitions of pure menstrual migraine and menstrually-related migraine. The relation between sex hormones and other types of primary headache has been studied less extensively, but there is at least some evidence that hormones in general, and menstruation, pregnancy, or menopause in particular, also impact these disorders.

Hodson et al., 2000 determined the prevalence of headache in menopausal women and to assess factors that may influence headache at menopause and in women using hormone replacement therapy (HRT). A questionnaire survey was performed on 1000 consecutive women attending Leicester Royal Infirmary menopause clinics. Weight, blood pressure and smoking status were also recorded.

Recurrent headache was common and reported by 850 women; 240 women reported a history of migraine. Most women (n = 617) had headaches more frequently than once monthly and 520 women had had at least one headache in the preceding week. Stress was the most common trigger factor (n = 704). A group of 'hormone-sensitive' women was identified (n = 259) whose headaches became worse at menopause and showed variable response to HRT. Logistic regression models showed reported history of migraine and more difficulty coping with stress to be strong predictors for worse headache at menopause and with HRT. Headache improved with age and increasing diastolic blood pressure. No other significant factors were identified.

The authors concluded that headache was a substantial problem at menopause and in HRT users. It was difficult to predict which women will develop worse headaches at menopause and with HRT, but a history of migraine and reduced coping with stress were significant factors in this group.

Hence the objective of the study was to find if there's any association between the type of menopause with duration and severity of headache. Interview schedule method was used to collect information on medical history, severity and duration of headache among post menopausal women.

RESULTS AND DISCUSSION

Table 1

Percentage distribution of post menopausal women according to their medical history

Condition	Not present		Slight		Moderate		Severe	
	No. of women (N=300)	Percentage (%)	No. of Women (N=300)	Percentage (%)	No. of women (N=300)	Percentage (%)	No. of women (N=300)	Percentage (%)
Anemia	131	43.7	62	20.7	75	25.0	32	10.7
Hypertension	58	19.3	95	31.7	57	19.0	90	30.0
Arthritis	251	83.7	45	15.0	4	1.3	-	-
Recent weight loss	53	17.7	145	48.3	44	14.7	58	19.3
Motion sickness	264	88.0	32	10.7	4	1.3	-	-

It is revealed from the table 4.11 that anemia was absent in 43.7 per cent of post menopausal women. About 20.7 percentage of post menopausal women had mild and 25.0 per cent had moderate anemia, whereas 10.7 per cent of post menopausal women were suffering from severe anemia.

Hypertension was severe in 30.0 per cent of postmenopausal women and 19.0 per cent of post menopausal women had a moderate hypertension. About 31.7 per cent of post menopausal women were suffering from mild hypertension. The remaining 19.3 per cent of post menopausal women did not have hypertension.

Fifteen per cent of post menopausal had mild arthritis and very few (1.3 %) of post menopausal women had moderate arthritis. None of the post menopausal women was suffering from severe arthritis.

Recent weight loss was seen in most of the post menopausal women which was slight in 48.3 per cent, moderate in 14.7 per cent and severe in 19.3 per cent of post menopausal women. About 17.7 per cent of post menopausal women maintained their weight.

Majority (88.0%) of post menopausal women were not suffering from motion sickness (Motion sickness is an unpleasant and sometimes disabling condition in response to the perception of certain kind of motions). About 10.7 and 1.3 percentages of post menopausal women had slight and moderate motion sickness respectively.

Other medical history such as thyroid disease, head injury, seizures, lung disease was absent in all post menopausal women included for the study. Hence it can be concluded that the headache of post menopausal women is not a symptom of any serious ailment and it can be due to other causes.

Relationship between duration of headache and type of menopause

The association between duration of headache and type of menopause in selected post menopausal women was studied and presented in table 2.

Table 2

Association between duration of headache and type of menopause in post menopausal women

Type of menopause	Duration of headache						Chi-square value
	Unknown	0 to 1	1 to 6	6 to 12	Constant	Variable	
Natural	0.7	1.4	1.4	0.7	13.6	82.1	40.643**
Artificial	1.3	0.6	0.6	10.0	37.5	50.0	

** - Highly Significant

For about 1.4 per cent of post menopausal women, headache lasted for up to one hour. For another 1.4 percentage of post menopausal women headache lasted for one to six hours. Headache was present for six to twelve hours in 0.7 per cent of post menopausal women and 13.6 per cent of post menopausal women were disturbed by constant headache. But in 82.1 per cent of post menopausal women, duration of headache was too variable. About 0.7 per cent of post menopausal women did not know for how long the headache was present in those who had natural menopause.

About 10.0 per cent of post menopausal women suffered from headache from 6 to 12 hours, whereas 0.6 per cent of women had headache for up to one hour and 1 to 6 hours. 37.5 per cent and of post menopausal women are affected by a constant pain and 5.0 per cent of post menopausal women suffer from headache which is too variable. About 1.3 per cent of post menopausal women were unaware about their duration of headache.

There is a significant association between duration of headache and type of menopause among post menopausal women suffering from headache at one per cent level. Therefore type of menopause has an influence on the duration of headache in post menopausal women selected for the study.

Relationship between severity of headache and type of menopause

The severity of headache has been classified into 4 categories based upon severity: (I) mild severity - 0 to 4 points; (II) moderate severity - 5 to 7 points; (III) severe severity - 8 to 10 points.

The association between severity of headache and type of menopause among post menopausal women was studied and presented in table 3.

Table 3

Association between severity of headache and type of menopause among post menopausal women

Type of menopause	Severity of headache			Chi-square value
	Mild	Moderate	severe	
Natural	2.9	50.0	47.2	187.223**
Artificial	-	3.1	97.9	

** - Highly Significant

Among women who underwent natural menopause, 2.9 per cent of women had mild headache, 50.0 per cent of women had moderate headache and 47.2 per cent of women had severe headache.

Post menopausal women who had artificial menopause were severely affected by headache as 97.9 per cent of women were suffering from severe headache and as low as 3.1 per cent of women had moderate headache. None of the post menopausal women suffered from mild headache.

There is a significant association in the severity of headache and type of menopause at one per cent level. From the results it is evident that type of menopause has an effect on the severity of headache

Hence it was concluded that there was a significant association between duration of headache and type of menopause among post menopausal and there was a significant association in the severity of headache and type of menopause.

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