
GYNAECOLOGY

Compliance with hormone replacement therapy at the menopause clinic, Siriraj Hospital

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ABSTRACT

Objectives To study the compliance and factors associated with compliance of hormone replacement therapy in post menopause women.

Design A retrospective descriptive study

Setting A university hospital

Subjects A total number of 423 postmenopausal women attending the menopause clinic, Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University were recruited. All subjects started hormone replacement therapy during the year 1996-1998.

Main outcome measures Compliance of hormone replacement therapy.

Results Compliance with hormone replacement therapy at 1 and 2 years were 71.4% and 63.6% respectively. Significant factors associated with increased compliance were surgical menopause, younger age at onset of hormone replacement therapy and not having side effects.

Conclusion Compliance with hormone replacement therapy at 1 and 2 years were 71.4% and 63.6% respectively. Factors affecting compliance-included type of menopause, age at onset of hormone replacement therapy and having no side effects.

Key words: Compliance, hormone replacement therapy, postmenopausal women

It is generally accepted that menopausal symptoms such as hot flushes, urogenital symptoms etc. can be treated efficiently with hormone replacement therapy (HRT). Furthermore, there are also evidences that long term use of HRT could prevent cardiovascular disease and osteoporosis.^(1,2) Although HRT offers many advantages for menopausal women, low compliance with HRT has also been reported. Eiken and Kolthoff reported 46% compliance

with oral HRT in a group of women after 8 years of treatment.⁽³⁾ Doren and Schneider reviewed literatures and reported higher compliance rate, 96% after 1 year of treatment and 76% and 58% after 5 and 9 years respectively.⁽⁴⁾ Others reported or reviews showed much lower compliance with HRT. Hammon et al., reported one year compliance with HRT of less than 40%.⁽⁵⁾ Many reasons have been highlighted for these poor compliances such as lack of knowledge of

benefits of HRT or fear of the potential side effects e.g. irregular and return of menses.⁽¹⁾ Many strategies have been extensively used to increase acceptance and compliance with HRT, including improved regimens and routes of administration, new synthetic steroid, intensive health education, screening for high-risk women.

This retrospective study was performed to determine long-term compliance of HRT at a tertiary care menopause clinic and factors associated with compliance. In each patient, follow up was conducted over a 2-year period after commencing HRT. The results obtained from this study may help improve a future plan to increase compliance among Thai women.

Materials and methods

Natural and surgical menopausal women who first attended the menopause clinic at Siriraj Hospital from January 1996 to December 1998 and commenced HRT were recruited in this study. Perimenopausal women and patients who were using HRT before attending the clinic were excluded. Thus, this study included only patients who newly started HRT at or after the time of the first consultation. HRT was prescribed in a standard manner that was categorized into 4 items: estrogen alone, continuous combined estrogen and progesterone, sequential estrogen and progesterone or synthetic steroid. Their subsequent performance was followed for more than 2 years after commencing HRT. Age at menopause, duration of

menopause before initial consultation, age at the start of treatment, compliance and reason for non-compliance of HRT were studied. Data was analyzed by SPSS for Windows, using descriptive statistics, Chi-square test and Unpaired t-test. Statistical significance was considered when P value was ≤ 0.05 .

Results

Among 423 menopausal women recruited in this study, there were 141 (33.3%) natural and 282 (66.7%) surgical menopausal women. The overall mean age of menopause was 44.3 ± 6.5 yr. The mean age of menopause in the natural group was 47.9 ± 5.4 and the surgical group was 42.6 ± 6.3 yr respectively. The mean age of first consultation in the natural group was also significantly higher than that of the surgical groups (54.3 ± 6.3 and 46.7 ± 7.2 yr respectively, $P < 0.001$).

Some general characteristics of the menopausal women were shown in Table 1. The majority of the patients were housewives, married and without significant menopausal symptoms. Most of the patients did not experience side effects of HRT (93.9%). The common side effects were uterine bleeding or spotting (3.5%) and breast tenderness (2.6%).

Compliance of HRT after 1 and 2 years were shown in Table 2. There were nearly 30% of patients who were non-compliant at 1 year. After 2 years, approximately two thirds of the patients were continuing HRT.

Table 1. Some characteristics of the menopausal women in this study

	No.	(%)
Marital status		
Married	290	(68.6)
Single	47	(11.1)
Others	86	(20.3)
Occupation		
Housewife		(32.6)
Government service	106	(25.1)
Employee	68	(16.1)
Commerce/Business	46	(10.9)
Agriculture	20	(4.7)
Others	45	(10.6)

Menopausal symptoms before treatment	
No symptom	274 (64.8)
Hot flushes	119 (28.1)
Dyspareunia	13 (3.1)
Decreased libido	6 (1.4)
Others	11 (2.6)

Table 2. Compliance of HRT after 1 and 2 years

Compliance	1 yr	2 yr
	No (%)	No (%)
Compliant group	302 (71.4)	269 (63.6)
Non-compliant group	121 (28.6)	154 (36.4)
Total	423 (100)	423 (100)

Table 3 showed compliance of HRT at 1 year and factors affecting compliance. At 1 year, the average age of menopause in the compliant group was comparable with that in the non-compliant group. The average age at the first consultation in the compliant group was significantly lower than that of the non-compliant group. The surgical menopause group had a significantly better compliance than the natural menopause group. Menopausal symptoms before treatment and side effects of HRT did not significantly affect the compliance at 1 year.

Table 4 showed compliance of HRT at 2 year

and factors affecting compliance. At 2 year, the average age of menopause in the compliant group was not different from that in the non-compliant group. The average age at the first consultation in the compliant group was still significantly lower than that of the non-complainant group. Menopausal symptoms before commencing HRT did not significantly affect the compliance at 2 year but side effects of HRT significantly affect the compliance at 2 years. The surgical menopause group still also had a significantly better compliance than the natural menopause group.

Table 3. Compliance of HRT at 1 year and factors affecting compliance

Factors affecting compliance	Compliant group (N=302)	Non-compliant group (N=121)	P value
Age at menopause (yr ± SD)	44.1 ± 5.8	44.9 ± 7.8	0.299*
Age at first consultation (yr ± SD)	48.2 ± 7.1	51.8 ± 8.8	<0.001*
Menopausal symptoms before HRT			
Yes	127	47	0.544**
No	175	74	

Type of menopause			
Natural	91	50	0.027**
Surgical	211	71	
Side effect of HRT			
Yes	17	9	0.484**
No	285	112	

*Unpaired t-test,

** Chi-square test

Table 4. Compliance of HRT at 2 years and factors affecting compliance

Factors affecting compliance	Compliant group (N=269)	Non-compliant group (N=154)	P value
Age at menopause (yr ± SD)	44.0 ± 5.9	44.8 ± 7.3	0.271*
Age at first consultation (yr ± SD)	48.2 ± 7.3	51.0 ± 8.2	<0.001*
Menopausal symptoms before HRT			
Yes	115	59	0.372**
No	154	95	
Type of menopause			
Natural	80	61	0.003**
Surgical	189	93	
Side effect of HRT			
Yes	11	15	0.020**
No	258	139	

* Unpaired t-test,

** Chi-square test

Discussion

The average of menopause of the patients attending the menopause clinic in this study, during the year 1996-1998, was 44.3 ± 6.5 years, lower than previously studied by Atisook R et al, at Siriraj Hospital in the year 1992-1993⁽⁶⁾ who reported that the mean age of women at menopause attending the out-patient department was 51.2 ± 3.7 years. This figure may be the effect of the large proportion of surgical menopause women who were looked after earlier. There was a study indicating that women who intend to utilize or to continue to utilize HRT perceived significantly more advantages of HRT and more social support for utilizing HRT compared with women who did not.⁽⁷⁾ The other study in naturally menopause women reported that past regular gynecologic follow-up appeared to be

the strongest determinant of HRT use.⁽⁸⁾

Compliance of HRT is a very important issue in HRT for menopausal women as long-term use could help prevent osteoporosis and cardiovascular disease. The results of this study showed that compliance of HRT at the menopause clinic of Siriraj Hospital was 71.4% and 63.6% at 1 and 2 years respectively. This compliance was comparable with previously reported by Techatraisak et al⁽⁹⁾ who studied compliance of menopausal women commencing HRT at Siriraj Hospital in the year 1995. Compliance dropped remarkably in the first year of HRT and slowly decreased in the second year. This was also observed in the previous study. The compliance at that time was 67.8% and 60.0% at 1 and 2 years respectively. Chung et al⁽¹⁰⁾ reported compliance of 81.0% and 63.8%

at 1 and 2 years in Chinese women in Hong Kong, the similar rate of drop out was observed as in this report. Leung et al⁽¹¹⁾ also recently reported the 5-year compliance rate of 71.1% in Hong Kong, where the overall compliance rates were nearly the same from 2 and 5 years. The compliance in the patients at Siriraj Hospital was noticeably slightly lower than that in Hong Kong. When compared with some western society at the same time, Doren et al reported a much higher compliance in German women, 97% at 1 year and 70% at 5 years.⁽⁴⁾ However, lower compliance of only 50% after 1 year were also reported in postmenopausal women who were previously screened for low bone mass density before HRT.⁽¹²⁾ Also, 53% discontinued hormone therapy by the end of the first year and one-fifth stopped after the first prescription.⁽¹³⁾

Relatively lower compliance of HRT among Asian women might be the difference in the lack of knowledge of long-term benefits of HRT, side effects or cultural differences. Women in Asian countries have a more tendency to live a natural life after menopause than in the western world. Not uncommon, women in the some developing Asian countries perceive menopause as a natural physiological phenomenon and were happy that they were getting more time to pray, had a feeling of well being and felt clean. There was general relief at no longer having children and freedom from worry about contraception. Menopause was welcomed if the family size was complete. Osteoporosis and coronary heart disease do not appear to be of major concern to these women.^(14,15,16)

From the results in this study, age at menopause was not the factors affecting compliance at 1 and 2 years. This was different from that reported by Chung et al, who reported that compliance was higher in the women with younger menopausal age.⁽¹⁰⁾ Ettinger et al, noticed the higher compliance among women who had higher ages of menopause after 1 year of follow up.⁽¹⁷⁾ Vestergaard et al, also observed that compliance decreased in the women with high levels of FSH with intact uterus who were older but this observation was not seen in women who already had hysterectomy.⁽¹⁸⁾

However, age at first consultation in this study influence the compliance. The same result was observed by Chung et al, who reported that compliance was higher in the women who had the younger age at first consultation than the non-compliant ones.⁽¹⁰⁾

The majority of menopausal women in this study did not suffer menopausal symptoms before attending the menopause clinic. Among those reported to experience menopausal symptoms, the most common symptoms were hot flushes (28.1%) which was the same as noticed by Karakoc et al, who reported hot flushes in 42% of menopausal women before commencing HRT.⁽¹⁹⁾

Type of menopause affected compliance of HRT in this study. Surgical menopause resulted in higher compliance than natural menopause both at 1 and 2 years. This was different from previous reported in the same hospital by Techatraisak et al,⁽⁹⁾ who observed the trend of higher compliance among surgical menopausal women but without statistical significance although after 4 year of follow up. Torgerson et al, also reported the same results that compliance of HRT was higher in the surgical menopause group than that in the natural menopause group after 1 year, 59% and 48% respectively.⁽¹²⁾ This might be due to the fact that surgical menopausal women had some gynecologic conditions before operations, making them more concern about their health status and self care. No side effects of HRT were observed in the majority of patients. The two common side effects, uterine bleeding or spotting and breast tenderness, did not affect the difference in compliance in any group in the first year. Interestingly, these side effects did significantly influence the compliance in the second year. This may be explained that patients discontinued HRT because intolerable side effects after a period of time or trying other HRT regimens. Details of the reasons of discontinuing HRT in the subsequent year could not be clearly concluded here due to the limited retrospective data. The results of this study may be useful for improving a future plan of our and other menopause clinics to enhance

compliance of HRT both in the natural and surgical menopausal women. Many factors such as socioeconomic status, family income, quality of life, severity of menopausal symptoms, level of education, reasons for discontinuing HRT and hormonal regimens were not available for analysis in this study. A detailed prospective study should be carried out to obtain more information about factors affecting compliance of HRT in Thai menopausal women.

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