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Influences of Postmenopausal Hormone Replacement Therapy on Women's Health

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Abstract: The present study was done with the help of 200 menopausal women, out of them 100 women were Hormone Replacement Therapy (HRT) users and the other 100 were HRT-nonusers. The aim of the study was to screen the average age for menopause in Jordan and to screen the deteriorations in the quality of life among the HRT-users. A questionnaire designed specifically for this study was used. The independent variables were participant's background and lifestyle, surgical treatments, prevalence of menopausal symptoms, incidence of associated diseases, HRT drugs used and drug compliance. The results were analyzed thoroughly and the findings showed that the average menopause age for Jordanian women was 51-52 years old. The deteriorations in the quality of life were at levels of menopausal symptoms as hot flashes, headache, intolerance to sunlight, defecation difficulties, vaginal dryness, frigidity and sexual dysfunction. The incidence of some associated diseases was reduced among HRT users compared to nonusers as cardiovascular problems and osteoporosis. The proportion of each kind of HRT drug used by participants was estimated and the proportion of compliance to HRT drugs was found to be satisfactory which may be attributed to the continuous follow up with gynecologist, who is the apparent educator for HRT users.

Key words: Hormone Replacement Therapy (HRT), lifestyle, menopause, postmenopause

INTRODUCTION

Menopause is defined as the absence of menses for 12 consecutive months^[1]. It is a natural process involving the gradual depletion of ovarian follicles that occurs with advancing age. The menopause marks a time of dramatic hormonal and often social changes for women^[2]. It was estimated that in developed countries, women now aged 50 can be expected to live for further 30 years with the need of the proper healthcare^[3]. The key concept is that women enter menopausal status for instances, natural menopause, surgical menopause, early menopause or even premature ovarian failure^[4].

The evidence that HRT has an established role in improving menopausal symptoms, reducing cardiovascular risk and preventing osteoporosis is quite strong^[2,5]. Meanwhile a recent publication of clinical trials led to a dramatic shift in the evidence about postmenopausal hormone therapy^[6]. Benefits of HRT include prevention of osteoporotic fractures and colorectal cancer. Harms include Coronary Heart Disease CHD, stroke, thromboembolic events, breast cancer with 5 or more years of use and cholecystitis^[7-9]. Long term HRT is associated with an increased risk of ovarian cancer^[10-12] but studies have shown mixed results^[13,14]. Both short- and long-term unopposed estrogen therapies

are associated with an increased risk of endometrial cancer among women with an intact uterus^[15] and finally HRT has not been found to improve health-related quality of life^[16].

Recent large, randomized, placebo-controlled trials have shown substantial risks and limited benefits in the long-term use of HRT^[17]. Although, some investigations have reported that the beneficial effects of HRT are greater than the adverse effects^[2], others highlighted the risks of hormone therapy and the importance of identifying preventive lifestyle factors related to menopausal symptoms^[18]. Controversy continues about the risks and benefits of hormone replacement therapy for women during their years of perimenopause and postmenopause. Evidence is compiling, however, that indicates the benefits of exogenous hormones may outweigh these concerns. As pharmacists, we must have a current knowledge of hormone replacement therapy to counsel our patients effectively. In the present work, we have carried out our own assessment to uncover some factors that might lead to rationalize the use of HRT.

There is controversy about risks and benefits of HRT. This study aimed to screen the average for menopausal age in Jordan and to screen risks and benefits among menopausal HRT users.

MATERIALS AND METHODS

A questionnaire conducted with 200 postmenopausal women whose menopause had been either natural or surgically induced was specifically designed based on previously developed instruments that was found to be valid and reliable^[19,20]. Some modifications to the questionnaire were introduced to suit the present study which was carried in Jordan within the first trimester in 2004. The independent variables and interventions include: participant's background and lifestyle, surgical treatments, prevalence of menopausal symptoms, incidence of associated diseases, HRT drugs used and drug compliance. Menopause women were of different ages and classes visiting gynecology clinics in hospitals and other private clinics located in Amman, were invited to participate in the study and they were interviewed after being given a brief description of the study and an assurance of confidentiality. Data were collected from two groups; one of 100 HRT users and the other of 100 HRT-nonusers. Frequency analysis was performed and the collected data were analyzed using SPSS Version-10 program. We used cronpach alpha to test the reliability of scale and we found that the alpha values were greater than 60 which is an accepted percent.

RESULTS AND DISCUSSION

The results of screening 200 participants in the questionnaire (Table 1), shows that the average age for menopause of HRT-users and nonusers in Jordan were 51-52 years. Similar findings were mentioned in the United States of an average of 49 to 51 years^[21,22]. Table 2 shows previous surgical treatments among HRT users which may be the reason behind HRT initiation.

Screening for incidence of associated diseases among participants (Table 3) showed an interesting pattern. The levels among the HRT-users themselves compared to HRT-nonusers were lower for some disturbances meanwhile it was higher for others. Lower levels observed for hypertension were 14% among HRT-users compared to 20% nonusers and for osteoporosis 43% among HRT-users compared to 60% among nonusers. Such findings could be attributed to the lowering effect of HRT at the level of cardiovascular disturbances and osteoporosis as was mentioned by some workers when the HRT were used by menopausal women^[2,5,23]. It was suggested by other workers that HRT use after menopause can effectively reduce climacteric-related symptoms and therefore increase quality of life. A large number of studies have also demonstrated that with a sufficient dosage, bone loss can be prevented and

Table 1: Characteristics of menopausal participants

Characteristics	HRT users (%)	HRT nonusers (%)
General:		
Age distribution (years)		
Average age of participants	56	57
Average age when they become menopausal	52	51
Educational background		
None	21	20
Elementary	32	29
High school	29	34
Higher/further education	18	17
Marital status		
Single	5	4
Married	75	72
Separated or widows	20	24
Other characteristics		
Average weight	71 kg	
Average length	175 cm	

Table 2: Surgical treatments among HRT users before the initiation of HRT

Surgical treatments	HRT users (%)
Hysterectomy	26
Appendectomy	21
Adrenalectomy	14
Ovarectomy	9
Pancreatectomy	2
Thyroidectomy	2

Table 3: Incidence of associated diseases among menopausal participants

Associated diseases	Incidence of disease (%)	
	HRT users	HRT nonusers
Diabetes	28	30
Hypercholesterolemia	22	28
Hypertension	14	20
Hyperthyroidism	11	8
Gastric ulcer	14	17
Asthma	17	7
Osteoporosis	43	60
Bladder and/or vaginal infection	52	40
Having cysts in the breast	29	20

fracture frequency reduced. Epidemiological and experimental studies also suggest a decrease in cardiovascular mortality and morbidity among HRT-users compared to nonusers^[24]. The higher levels of disturbances among HRT-users compared to HRT-nonusers were for asthma 17% compared to 7%, for bladder or vaginal infections, 52% compared to 40% and having cyst in the breast 29% compared to 20%. The last finding may be attributed to the risk of breast cancer for HRT-users as was mentioned by some workers^[8].

Women believe as reported by other workers that menopause deteriorates their health and, the HRT users perceived themselves to be healthier and to have a smaller risk for cardiovascular diseases^[20]. The deteriorations in the quality of life of menopausal HRT users in the present study were higher compared to nonusers as shown in Table 4, where the percent of incidence of headache among HRT users was 68% compared to 38%

Table 4: Deteriorations of the quality of life of menopausal HRT users compared to HRT nonusers

Deteriorations	Deterioration (%)	
	HRT users	HRT nonusers
General symptoms		
Hot flashes	74	49
Intolerance to sunlight	62	40
Often with headache	68	35
Vaginal dryness	25	18
Frigidity	28	20
Sexual dysfunction	25	17
Urinary difficulties	28	27
Defecation difficulties	56	33
Mood		
Nervousness	71	60
Worriment	69	48
Often crying	57	41
Often depressed	53	29
Forgetfulness	62	47
Other observations		
Weight gain	35	27
Heavy cigarette smoking	56	19
Heaviness of lower extremities	57	55
Breast pain	43	27
Blood pressure variations	47	36
No symptoms	25	24

Table 5: Drugs used among HRT users

Generic name	Trade name	% used
Estradiol prasterone	Gynodian Depot	51
Tibolone	Livial	12
Estrogens (Conjugated)	Premarin	12
Estradiol valerate	Progyluton	11
Estradiol+ Norethisterone	Kliogest, Trisequens	12
Progesterone	Cyclogest	2

for nonusers, of hot flashes 74% compared to 49%, of intolerance to sunlight 62% compared to 40%, of defecation difficulties 56% compared to 33%, of vaginal dryness 25% compared to 18%, of frigidity 28% compared to 20% and with sexual dysfunction: 25% compared to 17%. Some of these negative findings about HRT were also mentioned by different workers^[16,25-27]. Table 4 also show deteriorations in the quality of mood of the menopausal HRT users with higher alertness compared to HRT nonusers, perceiving nervousness, worriment, crying, depressed and forgetfulness. Further deteriorations include weight gain, heavy cigarette smoking, breast pain and blood pressure variations. Such findings signal the need for more rationalization when starting HRT use for new patients.

Tailoring treatments to individual patients can overcome many of the problems that women have with HRT^[28]. If a woman wishes to begin or continue HRT for short-term menopausal symptoms, it is crucial to evaluate her individual risk of breast cancer, coronary heart disease, venous thromboembolism and stroke before recommending therapy. Otherwise HRT should not be recommended for treatment durations of more than five years and treatment should be discontinued in women at

risk of complications. Large, randomized, placebo-controlled trials have shown substantial risks and limited benefits in the long-term use of HRT^[16].

The HRT drugs used were estimated as seen in Table 5. Estradiol prasterone was the one with high proportion. While progesterone was the lowest and the other estradiol derivatives were in between. The proportion of compliance was satisfactory being 84% among HRT users as shown by Table 5. Such finding may be attributed to the continuous follow up with the gynecologist. Compliance with long-term therapy measured by some other workers of repeat prescriptions varied between 84 and 92% over a period of 5 years^[29].

In conclusion the average age at menopause in Jordan is 51-52 years. The deteriorations in the quality of life among HRT-users compared to nonusers were apparent as for headache, hot flashes, intolerance to sunlight, defecation difficulties, vaginal dryness, frigidity and sexual dysfunction. HRT prescribing must be rationalized benefits versus deteriorations, in order to improve the quality of life among HRT users.

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