# Postmenopausal users of long-term hormonal replacement therapy: social-cultural features

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#### Summary

Objective: To study of influence of social-cultural factors on the effects of long-term hormonal replacement therapy (HRT) in preventing cardiovascular disease and menopausal osteoporosis.

Method: We examined, perspectively the social-cultural features of 394 postmenopausal women who attended the menopausal out-patient department and were eligible for long term HRT.

Results: The HRT users were thinner and younger, with earlier menopause, physically more active, healthier, with more oophorectomies and with more professional work. Data shows that, as a whole, a greater number of healthy women are selected or selfselected for HRT.

Conclusion: Evaluating the results of long-term HRT in preventing cardiovascular disease and menopausal osteoporosis, the social-cultural features of HRT users must be carefully considered before any mass preventive interventions.

Key words: Hormone replacement therapy; Social; Lifestyle.

#### Introduction

The beneficial effects of hormone replacement therapy (HRT) are widely known in the treatment of climateric syndrome, and long-term HRT use is suggested with the aim of obtaining a substantial reduction of cardiovascular and osteoporotic risks [1, 2].

Climateric syndrome, menopausal osteoporosis and cardiovascular disease are affected, however, by factors other than the lack of menopausal hormones. In fact, biological, psychological and social-cultural factors also influence climateric syndrome, which can manifest itself into either a psycho-emotional or a neurovegetative state [3]. The same factors, social-cultural, environmental, lifestyle, and physical activity, can also affect the incidence of cardiovascular disease and postmenopausal osteoporosis.

Evaluating the presence of these factors and their influence on menopause and the short and long-term disturbances, can be very important in understanding the expression of postmenopausal pathology and the correct valuation of the efficiency of HRT.

The aim of the present study was to assess whether HRT users differ from non-users in social-environmental aspects which are believed to be able to affect not only the expression of climateric syndrome but also osteoporotic and cardiovascular risk.

# **Materials and Methods**

Five hundred postmenopausal women (at least six months from last menstruation) arrived at the menopausal out-patient department of the Dept. of Obstetrics and Gynecology of the University of Bari and were perspectively examined. They had no contraindications to HRT and they had never had hormonal therapy for menopausal problems. Women with stressed climateric syndrome needing therapy were excluded from the study. All the women were seen again after six months. These 500 women were divided into two groups: A) HRT users (study group, 177 women) and B) non-users (control group, 217 women). One hundred and six were excluded: 95 because they stopped the therapy within three months because of side-effects (the most frequent problems were bleeding, mastodynia, water retention, and weight increase); 11 because they did not present themselves for the check and were unable to be contacted.

The final sample was a total of 394 women composed of:

- 1. Postmenopausal women to whom physicians proposed longterm HRT and who accepted the treatment or explicitly requested long-term HRT and did not have contraindications to HRT;
- 2. Postmenopausal women to whom physicians proposed long-term HRT but refused the treatment or stopped it (not for side-effects).

Estrogen-only therapy was proposed to women who had undergone a hysterectomy, by oral or transdermal via; progestin was added for women with an intact uterus.

The proposed therapeutic schemes were agreed to by the women and were followed accordingly.

The gynecologist discussed any climateric problems, and showed modalities and finalities of HRT, leaving the patient to choose the therapy and the modality of assumption. HRT users were arbitrarily considered the women with at least three months of therapy because we considered that withdrawal in this period is due, above all, to the side-effects of the therapy; non-users were the women who did not start therapy or stopped it (not for side-effects). The others were not considered in the study.

The variables taken into consideration for the study were: age, civil status, education, work, sedentariness, weight, obesity, smoking, alcohol, related pathologies, age at menopause and type of menopause.

For the statistical analysis we used the Student's t-test two tailed, and the Chi-square test.

### Results

The results obtained are summarised in Tables 1-2. The two groups did not differ in civil status, parity, smoking

Revised manuscript accepted for publication February 22, 1999

Table 1. — Features of the sample for age, age at menopause, BMI, months of use of HRT

	HRT users No. 177		HRT non-users No. 217		р
	No.	%	No.	%	-
Age (mean in years)	51		54		< 0.001
BMI (mean)	25.1		27		>0.001
BMI >28.6	58	32.7	60	27.6	=0.32
BMI ≤28.6	119	67.2	157	72.4	
Menopause: mean age	47.1	48.6			=0.004
natural menopause	105	59.3	176	81.1	< 0.001
surgical menopause	72	40.5	41	18.8	
Any related pathology	103	58.1	55	25.3	< 0.001

Table 2. — Features of women for civil status, work, education, sedentariness, nulliparity, smoking

	HRT users No. 177		HRT non-users No. 217		p
	No.	%	No.	%	
Civil status					
single	14	8	21	9.6	0.66
married	163	92	196	90.4	
Work					
housewife	94	53.1	127	58.5	
worker/farm worker	8	4.5	8	3.6	
clerk/freelance-					
professional/manager	28	15.8	19	8.7	
dealer/artisan	4	2.2	13	7.3	
pensioner	12	6.7	30	13.8	
other	31	17.4	20	9.1	= 0.003
Education					
≥ 9 years	71	40.1	68	31.29	= 0.08
< 8 years	106	59.8	149	68.5	
Sedentariness	31	17.6	87	40.09	< 0.001
Nulliparity	16	9.1	19	8.7	= 0.9
Smoking	12	6.8	17	7.8	= 0.8

and obesity, (valued as BMI > 28.6). The women in the study group were however, lower in weight. In the study group clerks, freelance-professionals and managers were in greater numerical quantity, and even if the data are at the statistical limits, the study group women were more educated because the number of graduates and qualified people was higher.

From our data the HRT users were overall younger (mean age 51 years vs 54 years) and had a more precocious menopause (47.1 years vs 48.6 years). A greater number of these women had had an oophorectomy, were physically more active, healthier (over 58% declared remarkable pathology in anamnesis), and many had had surgical menopause. None of the women declared they were overdrinkers, as is the normal habit of our population. Finally, one must note the high number of non-users in our study that showed low acceptability to these types of therapy when proposed for a long time; moreover the number was also greater because perhaps some side-effects related by the 95 women in the excluded group were not so grave as to suspend therapy per se.

#### Discussion

The so-called climateric syndrome, although apparently well known and well studied, is really poorly defined and still not well clarified; this variability has been attributed to the influence of numerous biological, psychological and social-cultural factors. Also, the greater incidence of fractures, believed to be a consequence of postmenopausal osteoporosis [4], is also the result of numerous other factors, among them, importantly, lifestyle, alcohol consumption, smoking, physical activity, environmental and alimentary factors [5].

Regarding cardiovascular disease much evidence underlines the importance of menopause. Premenopausal women have a considerably lower incidence of cardiovascular disease compared with postmenopausal women of the same age. Cardiovascular risk clearly increases, above all, in surgical menopause [6, 7]; moreover, during menopause, there is a change in the atherogenic state of the lipid picture: tryglicerides, total cholesterol, LDLcholesterol increase, while the HDL decreases [8, 9], and estrogen replacement therapy has been effective in providing protection against cardiovascular morbidity and mortality [10, 11]. However, the variations in incidence have been stressed by some epidemiological studies and connected with lifestyle, alimentary and environmental habits. Moreover, the simple improved control of extrahormonal risk factors for cardiovascular diseases has caused a spontaneous decrement of this pathology in the last few years [12].

Many studies [13, 14, 15] have pointed out a decrease in the mortality and morbidity of HRT users. Factors of distortion independent of HRT can weigh on these advantages in that women in relatively good health can be unitentionally selected for HRT [16]. Also, from our data it emerges that, for HRT, women, overall in better health, are self-selected or are selected by the physician with respect to postmenopausal women who do not use HRT.

Recent works [17, 18, 19] have shown an increase in breast cancer with long-term HRT; this forces us to evaluate the effects of these therapies carefully when they are proposed as tools for mass prevention of cardiovascular diseases (CVD) and menopausal osteoporosis (MO); this is especially important in regions at low risk for CVD and MO which are becoming more and more at high risk for breast cancer [20].

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