

THE EFFICIENCY OF PHYTOESTROGENS IN TREATING THE MENOPAUSAL SYMPTOMS

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Abstract

Menopause is a physiological process, accompanied by a number of endocrine changes capable of causing major changes in the life of every woman. The current standard in the menopause therapy is the Hormone Replacement Therapy (HRT), which besides increased efficiency proven by numerous clinical studies, has a number of associated risks and numerous contraindications. For these reasons, every therapeutically alternative is very welcomed. In this study we have evaluate the effectiveness of specific phytoestrogens on specific menopausal symptoms, on a group of 115 women, aged between 47 and 57 years, with natural menopause for at least 1 year and up to 5 years. That was randomized into two groups: a lot of women who received various OTC phytoestrogens products and a control group. The evaluation of patients was performed by using Menopausal Rating Scale. The results showed that phytoestrogens may represent an effective alternative for treating menopausal symptoms.

Key words: phytoestrogens, menopausal symptoms, MRS, Questionnaires.

INTRODUCTION

Menopause is a complex biological process characterized by changes in endocrine level, these determine the permanent cessation of menstruation, marking the end of fertility in a woman's life. Menopause is determined by the reduction of the ovarian function and the decreased production of estradiol, leading to the depletion of the ovarian follicles (Blake J., 2006). Menopause is a phenomenon that occurs naturally, after a transitional period of several years or can be induced as a result of surgical removal of the ovaries, chemotherapy or radiotherapy (MR Soules. Et al, 2001). Natural menopause is diagnosed retrospectively after 12 months of amenorrhea, and reflects an almost complete cessation of the ovarian hormone secretion (Soules MR. Et al, 2001). The average age of menopause is 51 years (Abeer A. et al, 2012).

Natural menopause is preceded by a period of transition from the reproductive phase in a woman's life to the nonreproductive stage, which lasts between 2 and 8 years in 95% of women. (Pines A. et al, 2007; Speroff L. et al, 2005). This transition phase also called peri-menopause, is usually characterized by specific signs and symptoms caused by significant

hormonal changes that have an impact on all estrogen sensitive tissues (Henn, EW 2013)

Therefore the transition to menopause, associated with a decrease production of endogenous ovarian estrogen affects every woman differently. There are many symptoms that women can experience with different intensity, which can be grouped into short, medium and long term (Komm B. et al, 2012).

A number of studies conducted in different populations based on questions and the severity of symptoms reported that typical symptoms in menopause are vasomotor symptoms (hot flashes), vaginal dryness (Luoto R. et al, 2009) and sleep disorders (Polo-Kantola P. et al, 2001). The probability of any further symptoms is greater if the woman shows vasomotor symptoms (Luoto R. et al, 2009). It is estimated that vasomotor symptoms affect 60% up to 80% of women during the post-menopausal period, but they can be experienced by a percentage of up to 90% of women during the peri-menopausal phase (Wulf H. et al, 2005). Cross-sectional studies, conducted among women of different ages show that hot flashes are more common shortly after menopause, but they appear even after 10 years (Kronenberg F, 1990).

Thus, up to 30% of women reporting VMS at the age of 60, and almost 10% at the age of 70 years. 40% up to 60% of women report vasomotor symptoms of moderate to severe intensity, and 20% reported the symptoms as being almost unbearable (Bachmann GA. 2005). The low level of estrogen characteristic to menopause produces symptomatic, histological and functional changes of the vulva, the vagina and the lower urinary tract together. Examples of specific urogenital problems include urgency, urinary incontinence and susceptibility to urinary tract infections (Henn, EW 2013). The vulvar / vaginal atrophy can lead to discomfort symptoms such as vaginal dryness (Levine, JP, 2011) it has been reported that the percentage of women with vaginal dryness increases from 25% in the first year post-menopause to 47% in third year post-menopause (Lewis V., 2009).

The current standard for the treatment of climacterium symptoms of moderate to severe intensity is the HRT. Numerous studies have shown that this therapy significantly reduces the severity and frequency of vasomotor symptoms and has long-term benefits (Garefalakis M, 2008), but also has a number of contraindications and numerous side effects, most notably due to its interfering with cardiovascular and liver disease and increasing the risk of estrogen-dependent neoplasia (Winkler UH.1992). An alternative for women who do not want or have contraindications to hormone therapy are the phytoestrogens, isoflavones derived from soy or clover, lignans and cumestans (menopause therapy, Guide 06, 2007).

MATERIAL AND METHOD

The study was conducted over a period of 6 months and comprises a total of 115 women, aged between 47 and 57 years with characteristic menopausal symptoms of moderate to severe intensity.

Patients were randomized into two study groups/lots, group I -62 women who received different OTC products that contain phytoestrogens derived from soy, red clover or *Cimicifuga racemosa* in various doses recommended by the doctor or the pharmacist, and the group II - 53 women which have not received any medicinal product.

Inclusion criteria were: naturally menopausal women over 1 up to 5 years and symptoms of moderate to severe without hormone replacement therapy. Exclusion criteria: women with induced menopause (surgical, chemotherapy or radiotherapy) menopause lasting for over 5 years and naturally menopausal women with duration between 1 and 5 years without associated symptoms or mild symptoms. Selecting patients for the study, and their evaluation at 6 months was made on the basis of a questionnaire, which is The Menopausal Rating Scale (MRS).

The Menopausal Rating Scale is designed and standardized for the assessment of symptom severity over time, and of changes during hormone replacement therapy.

Assessments are related to psychological symptoms (four symptoms: depression, irritability, anxiety) somatic-vegetative symptoms (four symptoms: hot flashes, heart complaints, sleep disorders, joint and muscle pain) and urogenital symptoms (three symptoms: sexual problems, urination complaints, vaginal dryness). (Klaas H., 2004). Data from the initial evaluation of patients and six months were processed statistically.

RESULTS AND DISSCUSION

During the study, some symptoms such as irritability, hot flashes, vaginal dryness and sexual problems suffered significant changes in patients from group I.

After the initial evaluation of the patients in the 2 groups they were distributed according to the severity of the symptoms according to Table I.

Table I

Distribution of the cases according to the severity of the symptoms

	Lot 1		Lot 2	
	No.	%	No.	%
Somatic-vegetative symptoms				
Moderate	9	14,5	8	15,1

	Severe	53	85,5	45	84,9
Psychological symptoms					
	Moderate	12	19,4	11	20,8
	Severe	50	80,6	42	79,2
Urogenital symptoms					
	Moderate	17	27,4	16	30,2
	Severe	45	72,6	37	69,8

Moderate somatic-vegetative symptoms were initially present at 14.5% of group 1, respectively at 15.1% of group 2 ($p = 0.867$), the psychological ones at 19.4% respectively at 20.8% ($p = 0.730$) and the uro-genital at 27.4% respectively at 30.2% ($p = 0.542$) (Figure 1).

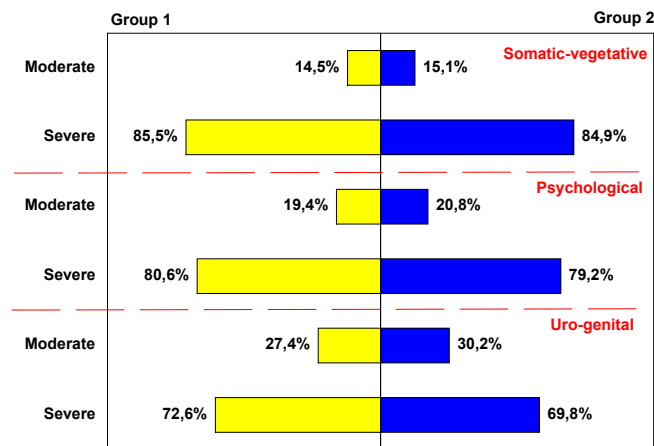


Fig. 1. Distribution of the cases according to the severity of the symptoms

The evolution of the symptoms by six months after the initial evaluation is shown in Table 2.

Table 2

Symptomatic progression at 6 months

	Aggravated		Stationary		Improved		Without symptoms	
	No.	%	No.	%	No.	%	No.	%
Somatic-vegetative symptoms								
Lot 1	-	-	15	24,2	41	66,1	6	9,7
Lot 2	1	1,9	32	60,4	20	37,7	1	1,9
Psychological symptoms								
Lot 1	-	-	14	22,6	39	62,9	9	14,5
Lot 2	-	-	30	56,6	18	34,0	4	7,5
Urogenital symptoms								
Lot 1	-	-	33	58,2	24	38,7	5	8,1
Lot 2	1	1,9	32	60,4	10	18,9	1	1,9

The disappearance of the somatic-vegetative symptoms was registered at 9.7% of patients of group 1 respectively 1.9% of group 2, 14.5% of the psychological respectively 7.5% of the uro-genital 8,1% respectively 1.9%.

Improvement of somatic-vegetative symptoms was recorded at 66.1% of the patients of group 1 respectively at 37.7% in group 2, of the psychological at 62.9% respectively at 34.0%, and of the uro-genital at 38,7% respectively at 18.9% (Figure 2).

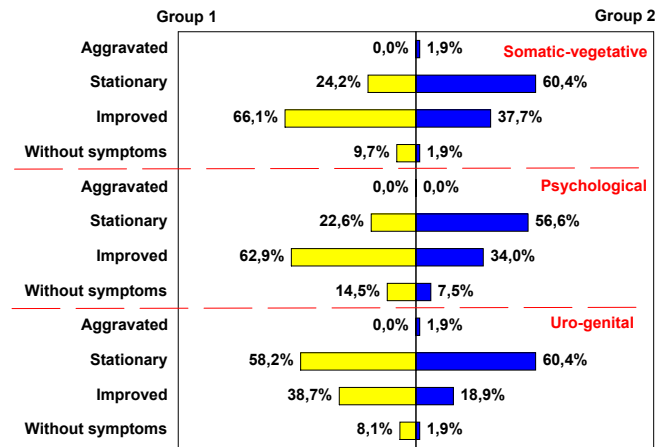


Fig. 2. The evolution of symptoms at the 6 months assessment

The aggravation of the symptoms was recorded only at the patients in group 2, in one case each for of the somatic-vegetative and of the urogenital.

Regardless of the type of symptoms, changes in patients evolution in group 1 was significantly better than of those in group 2 ($p < 0.001$).

CONCLUSIONS

Following the statistical analysis of the obtained data it is found that treatment with phytoestrogens causes a significant improvement of the menopausal symptoms and therefore of the quality of life of the patients.

The obtained results show that phytoestrogens may be an effective therapeutic alternative for a broad range of specific symptoms in menopause.

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