

Improvement of Quality of Life of Women with a Premenstrual Syndrome as Estimate of Efficiency of Herbal Medical Treatment on the Basis of Vitex Agnus Castus

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Abstract: Nowadays the quality of life (QL) is considered as one of criteria of estimate of efficiency of carried out therapy. Research goal was to study indicators of QL of patients with a premenstrual syndrome (PMS) of the average degree and the severe clinical course and also after a course of phytotherapy on the basis of dry extract of fruits of Vitex Agnus Castus (VAC). There were 121 patients aged from 18 till 45 under observation. For estimate of QL and influence of PMS on various aspects of life the patients filled Medical Outcomes Study questionnaire – Short Form (MOS-SF-36) at the end of a lutein phase of a menstrual cycle twice, before and after treatment. After treatment statistically significant reduction of deformation of indicators both physical and psychological health components were revealed.

Key words: Premenstrual syndrome • Quality of life • Vitex Agnus Castus • MOS-SF-36

INTRODUCTION

The premenstrual syndrome is the condition characterized by existence of physical, behavioural symptoms which regularly arise in the second half of a menstrual cycle and have impact on various aspects of life of a woman. For the correct diagnostics and statement of the diagnosis they recommend keeping the PMS-diary within one-two months with a daily estimate of expressiveness of symptoms and all changes of health.

The long time concept of quality of life was used only in the social plan and meant degree of satisfaction of human needs [1]. Importance of studying of QL of women with PMS is caused by that at many women premenstrual signs make essential negative impact on their everyday life: working capacity and social activity decrease, relationship in a family, including the sexual sphere is broken [2-5]. Women with PMS have more absences of work or study in comparison with women without PMS [6]. In this regard use of resources of health care [7] increases and also considerable social and economic losses [8] are possible.

There is a large number of approaches to treatment, they offered drug and non-drug methods of correction of PMS that is caused by a variety of symptoms and a large number of the theories which explain pathogeny of this pathological condition [9-12], but not many methods of treatment are estimated from a position of their influence on QL of women.

The analysis of available references revealed importance and necessity of further carrying out researches and studying of QL of women diagnosed with PMS [13-15].

Research goal was to study indicators of QL of patients with PMS of average degree and severe clinical course and also after a course of phytotherapy on the basis of dry extract of fruits of VAC.

Design: Comparative, monocenter research, duration of supervision is 6 months, duration of treatment is-3 months.

121 women were included in research diagnosed with PMS middle aged 29,7 years old (a median 29,0; from 18 to 45 years old) and 98 healthy women without PMS

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manifestations. All participants of research received full information, signed the informed consent and corresponded to the following criteria: age of 18-45 years old; absence of serious extragenital pathology; duration of a menstrual cycle within 12 months 28 - 32±2 days. Criteria of exception: taking hormonal preparations within 6 previous months, their inhibitors, neuroleptics, antidepressants, undergone psychiatric treatment, had endocrine, chronic diseases of kidneys, liver, stomach ulcer in active disease, a malabsorption syndrome, hypersecretion of bilious acids; endometriosis, diseases of mammary glands, galactorrhea, were pregnant women or those who planned pregnancy, suckled and also planned any treatment including surgical one during research.

MATERIALS AND METHODS

In the period of admission the patients were surveyed with application of informative diagnostic methods, thus clinically significant deviations from the all-population normative indicators were not revealed. For confirmation of the diagnosis, estimate of efficiency of treatment the patients having characteristic symptomatology for PMS filled in PMS-diaries 2 months before treatment and during treatment daily (Fig. 1) where they estimated severity of symptoms on the basis of digital analog scale (DAS) indicators, a self-appraisal scale of the questionnaire of symptoms of the premenstrual tension (SPMT-questionnaire) that represented approved psychological questionnaire [16] including 36 emotional and somatic symptoms. MOS SF-36 [17] questionnaire was the tool for research of QL. Women without PMS manifestations filled MOS SF-36 questionnaire once.

The tablets containing 40 mg of dry extract of fruits of VAC were prescribed to 121 patients in the regimen 1 tablet 20 minutes before breakfast daily during three menstrual cycles.

The statistical analysis was carried out by means of methods of descriptive statistics and dispersive analysis. Reliable results were considered at $p < 0.05$.

RESULTS

At the moment of inspection all women had the regular menstrual cycle, its duration made from 22 to 35 days. Features of menstrual function are presented in Table 1.

Table 1: Characteristics of the menstrual function of women with PMS.

	Basic group (n=121)	
The duration of the menstrual cycle. (days)	27.3±1.5	
The length of bleeding	5.8±1.4	
Menstruation established	n	%
Sense menarche	81	66.9
In 1-2 years	31	24.0
In 3 years	12	9.1
Heavy menstruation	21	17.4
Moderate menstruation	89	73.6
Scanty menstruation	11	9.1
Dysmenorrhea	51	42.1

The internal tension and irritability which were present at 90 (74.4 %) were the most frequent manifestations of PMS before treatment; appetite change - at 85 (70.2%), a mastodynia - at 81 (66.9%), aggression and the raised proneness to conflict - at 77 (63.6%), depression and a pain syndrome - at 72 (59.5%). The profile of quality of life of women with PMS before the treatment was characterized by the greatest deformation on the following indicators: Role - Physical Function (RP) - 36.5±28.1 points, Social Function (SF) - 46.6±9.5 points, Role - Emotional Function (RE) - 50.4±31.6 points also had statistically significant distinctions in comparison with similar indicators of healthy women ($p < 0.005$). Indicators of Bodily Pain (BP), Mental Health (MH) and Vitality (VT) were lowered and they were approximately in equally compressions (51.7±16.7, 51.6±14.4 and 51.9±15.9 respectively) and also statistically differed from indicators of healthy women ($p < 0.001$). (Figure 1).

Before the treatment 85 (70.2%) complained of appetite change, as a rule, towards strengthening; in 3 months only at 37(30.6%) patients the food behavior ($p < 0.05$) was changed. Mastodynia before the treatment was at 81 (66.9%) patients, in 3 months - at 39(32.2%) women ($P < 0.05$). Within 3 months of treatment there was a reduction of intensity of psychological symptomatology: before treatment irritability, increased aggression and proneness to conflict were at 77 (63.6%) patients, in 3 months these manifestations of PMS were noticed at 62 patients (51.2%) ($p = 0.0505$). The internal tension, timidity after treatment remained with 51 patients (42.14%) ($p < 0.05$) (Figure 2, Table 2).

Totally before treatment women had 673 manifestations of PMS and 5.6 symptoms with intensity from 7 to 10 points of scale were the share of a woman. Upon termination of the observation period the quantity of symptoms decreased to 403 and 3.3 symptoms were the share of a woman.

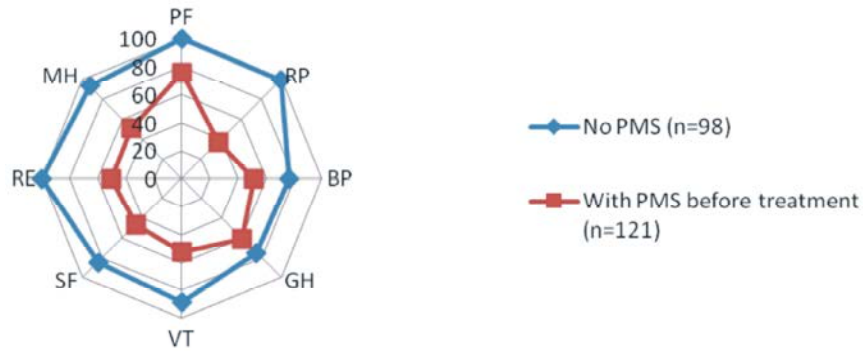


Fig. 1: Profile of the quality of life of women with PMS before the treatment and women without PMS.

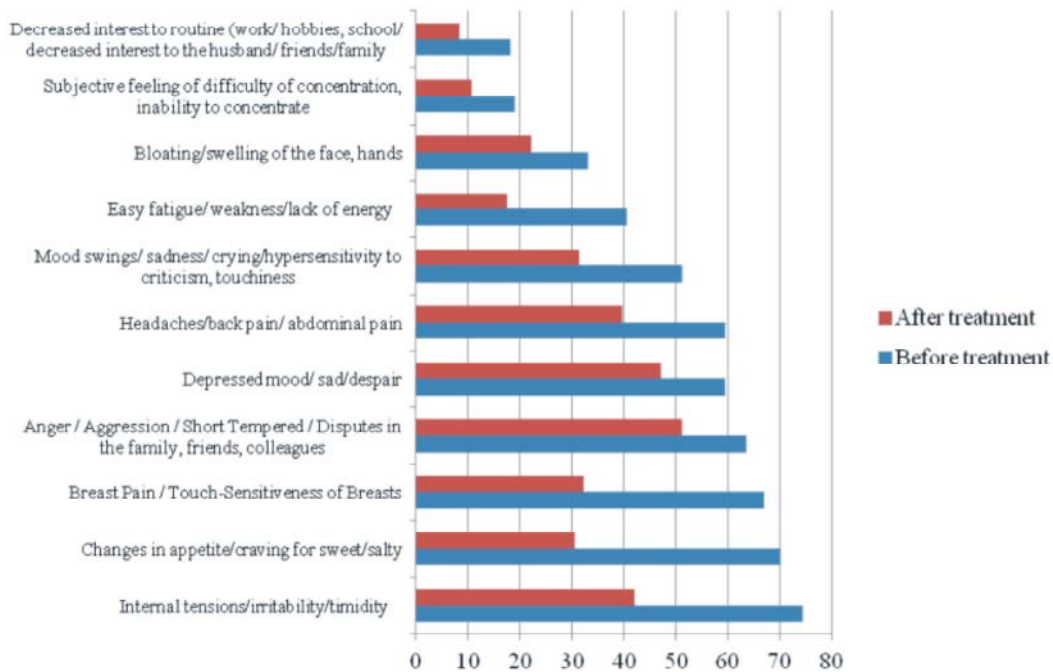


Fig. 2: The main symptoms of PMS in the dynamics of treatment for women with PMS

Table 2:

The main symptoms of PMS	Before treatment		After treatment		p
	n=121	%	N=121	%	
Internal tensions/irritability/timidity	90	74.4	51*	42.1	p<0.05
Changes in appetite/craving for sweet/salty	85	70.2	37*	30.6	p<0.05
Breast Pain / Touch-Sensitiveness of Breasts	81	66.9	39*	32.2	p<0.05
Anger / Aggression / Short Tempered / Disputes in the family, friends, colleagues	77	63.6	62 p=0.0505	51.2	p>0.05
Depressed mood/ sad/despair	72	59.5	57 p=0.0526	47.1	p>0.05
Mood swings/ sadness/ crying/hypersensitivity to criticism, touchiness	62	51.2	38*	31.4	p<0.05
Easy fatigue/ weakness/lack of energy	49	40.5	21*	17.4	p<0.05
Bloating/swelling of the face, hands, feet/weight gain	40	33.1	27 p=0.0611	22.3	p>0.05
Headaches/back pain/ abdominal pain	72	59.5	48*	39.7	p<0.05
Decreased interest to routine (work/ hobbies, school/ decreased interest to the husband/ friends/family)	22	18.2	10*	8.3	p<0.05
Subjective feeling of difficulty of concentration, inability to concentrate	23	19.0	13 p= 0.0702	10.7	p>0.05
The total number of symptoms	673		403		
Number of symptoms per woman	5.6		3.3		

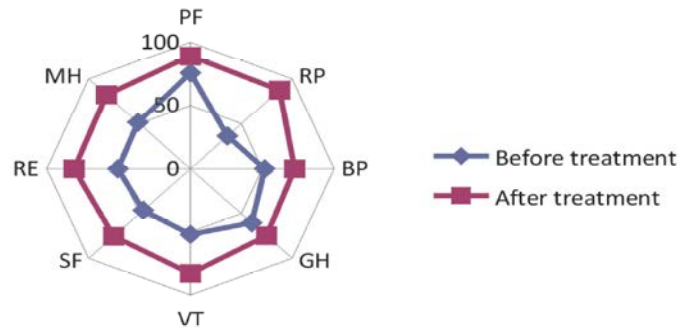


Fig. 3: Profiles of the quality of life of women before and after treatment

The share of women after treatment who had the considerable clinical improvement estimated on the basis of these SPMT-questionnaires and reflecting subjective feelings of women made 66.1% (80 of 121). There was not any effect from treatment at 21 (17.4%) women.

Estimating QL after treatment they revealed statistically significant reduction of more psychological deformation of indicators: V (before treatment 51.9 ± 15.9 : 82.8 ± 9.6), RE (50.4 ± 31.6 : 80.9 ± 18.5) and MH (51.6 ± 14.4 : 82.3 ± 5.8 before treatment, respectively) and also physical health components: RP (36.5 ± 28.1 : 87.5 ± 12.5).

At 12 patients (9.9%) during reception of a preparation were noted adverse by the phenomena, thus serious collateral reactions during therapy weren't registered at a woman.

CONCLUSION

Fields of research QL in medicine are extensive and the most important of them are estimate of standardization of methods of treatment; examination of new methods of treatment with use of the international criteria accepted in the majority of the countries; development of the fundamental principles of palliative medicine; ensuring dynamic supervision over groups of risk and estimate of efficiency of preventive programs; economic ground of methods of treatment and other medical and pharmeonomical criteria [18].

They conducted examination and prescribed treatment to 121 women who had various psychological manifestations of a premenstrual syndrome (irritability, increased aggression and proneness to conflict, depression) in the II phase of a menstrual cycle at women is appointed there were and in smaller degree physical manifestations (pains of various localization – at mammary glands, in the bottom of a stomach, head).

Against the background of carried-out therapy there was a reliable reduction of intensity of the majority of manifestations of PMS; patients registered that daily in

diaries. The share of women who to the end of supervision had the considerable clinical improvement estimated on the basis of diaries and reflecting subjective feelings of women made 66.1%. The estimate of QL showed statistically significant reduction of deformation of indicators of physical (RFF) and psychological health component (REF and PZ) that it is possible to interpret from the point of view of high efficiency of the herbal preparation containing dry extract of fruits of *Vitex Agnus Castus*.

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Appendix to Fig. 1: Patient's daily diary.

What changes in the state were most frequently and protractedly during the whole week before menstruation? Rate please in scale from 0 to 10 (Circle your choice or highlight)

1	Depressed mood/ sad/despair	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
2	Internal tensions/irritability/timidity	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
3	Mood swings/sadness/crying/hypersensitivity to criticism/ touchiness	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
4	Anger/Aggression Short Tempered/Disputes in the family, friends, colleagues	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
5	Decreased interest to routine (work/ Hobbies, school/decreased interest to the husband/ friends/family	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
6	Subjective feeling of difficulty of concentration, inability to concentrate	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
7	Easy fatigue/ weakness/lack of energy	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
8	Changes in appetite/craving for sweet/salty	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
9	Breast Pain / Touch-Sensitiveness of Breasts	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
10	Headaches/back pain/ abdominal pain	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
11	Bloating/swelling of the face, hands, feet/weight gain	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
12	Insomnia/drowsiness/insomnia/restless sleep	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
13	Nausea/vomiting/indigestion	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
14	Skin itch	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
15	Pain in the heart/ tachycardia/bradycardia	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
16	vertigo	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
17	Increased body temperature/ chills	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
18	Shortness of breath/ dyspnea	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
19	Changes in sexual feelings	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
20	Visual impairment	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
21	Frequent urination/Itchy urethra	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
22	Allergic symptoms	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>
23	Other manifestations (specify)	0	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>	<input type="checkbox"/>