

Personality profile in menopausal women

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Summary

Purpose of Investigation: Different menopausal conditions may exhibit different personality traits. The Minnesota Multiphasic Personality Inventory (MMPI) responses between naturally menopausal women and surgically menopausal women may be different. The authors compared the personality characteristics of naturally and surgically menopausal women by using MMPI. **Materials and Methods:** Twenty-five surgically menopausal women and 54 natural menopausal women were included in the present study. Psychometric evaluation was established with the Turkish version of the MMPI. The patients were divided into two separate groups as the surgically menopausal women and naturally menopausal women. **Results:** Surgically menopausal women compared to naturally menopausal women had higher absolute scores on hypochondriasis (66.4 ± 9.2 vs. 57.1 ± 8.0 , $p = 0.001$, respectively). Surgically menopausal women compared to naturally menopausal women had a higher rate of clinical elevation on both depression (40.0 vs. 13.0%, $p = 0.007$, respectively) and hypochondriasis (60.0 vs. 14.8 %, $p = 0.001$, respectively). Hypochondriasis t score in patients with menopause was associated with the presence of surgically menopausal status after adjusting for possible confounding factors in multivariate model. **Conclusion:** Surgical menopause may take the foreground hypochondriac personality traits because of its unique characteristics. Surgically menopausal women are relatively more overworked with their bodies, so they complain of chronic fatigue, pain, and weakness, indicating hypochondriacal personality features.

Key words: Surgically menopausal women; Minnesota Multiphasic Personality Inventory; Personality traits; Naturally menopausal women.

Introduction

Women with natural and surgical menopause reveal the loss of cyclic ovarian production of estrogen [1]. Psychiatric symptoms are frequent in the perimenopause [2]. Menopausal women indicate many biological, psychological, and social changes. Analysis of these factors in this period may indicate the optimum directions of treatment [3]. Psychological state and sexual function were impaired through the menopausal transition in the post-menopausal women [4]. Epidemiologic studies have demonstrated an increase in complaints of depressed mood and psychological changes from patients in the perimenopause. The etiology of these complaints has been the subject of much controversy. Current evidence supports a biopsychosocial etiological model. Underlying endocrinologic changes may trigger emotional complaints in the post-menopausal women [5]. Some biological and environmental factors may be modulating factors for the some changes in personality traits in menopausal women, such as presence of sleep disturbances, premenstrual syndrome, depression, and use of hormones [6]. Changes in the personality traits of menopausal women are not well defined. There is not enough information in the literature in this regard.

The present authors' objective was to determine whether the premature cessation of endogenous estrogen production in women with a surgical menopause has adverse conse-

quences for psychological status and whether results differ for women if they undergo natural menopause.

Materials and Methods

The study enrolled 79 women, including 25 patients with surgical menopause and 54 with natural menopause among consecutive patients followed at the Kırıkkale University School of Medicine, Department of Obstetrics and Gynecology, in a one-year period. This study had cross-sectional design.

This study was approved by the local ethics committee. All research procedures were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000. Informed consent/permission was obtained from the parents of subjects.

Pre-menopausal women that underwent abdominal hysterectomy and bilateral salpingo-oophorectomy for benign disease was accepted as surgical menopause. Women reporting no menstrual cycles within the previous 12 months before their follow-up examination were considered postmenopausal in accordance with the World Health Organization criteria. In addition, permanent cessation of menstruation resulting from the loss of ovarian follicular activity was defined as menopause by the World Health Organization [7]. Among postmenopausal women, those who reported cessation of menstrual bleeding not preceded by hysterectomy, radiation, or chemotherapy were classified as having natural menopause, whereas those who reported menstrual cessation due to hysterectomy with or without self-reported bilateral oophorectomy were classified as having surgical menopause. Self-reported

Table 1. — Mean SD for MMPI clinical scales in patients with menopause.

MMPI clinical scale	Surgically menopause (n=25)		Natural menopause (n=54)		p values ^a
	Mean ±SD	% elevated	Mean ±SD	% elevated	
Hypochondriasis*	66.4±9.2	60.0	57.1±8.0	14.8	0.0001
Depression*	58.7±9.2	40.0	57.6±5.6	13.0	0.5
Hysteria	56.5±6.6	12	59.5±7.4	11.1	0.09
Psychopathic deviation	55.4±10.4	32.0	58.2±9.0	48.1	0.2
Masculinity/femininity	57.0±7.0	20.0	59.5±6.6	14.8	0.1
Paranoia	54.8±11.2	16.0	52.2±6.6	7.4	0.1
Psychasthenia	56.2±7.6	16	54.5±5.3	5	0.2
Schizophrenia	55.6±8.6	8	55.7±8.4	16.6	0.9
Hypomania	50.4±6.9	4	50.7±12.6	20.3	0.9
Social introversion	57.3±8.5	8	57.6±7.6	12.9	0.8
MMPI mean t-score	56.8±4.8		56.2±3.6		0.5
Number of elevations	2.1±1.9		1.6±1.4		0.1

* $p < 0.05$, Comparison of percentage of sample elevated ($t > 65$) for MMPI clinical scales; ^aComparison of t score for MMPI clinical scales

age at natural cessation of menstrual flow or age at surgery to remove the uterus and/or ovaries was defined as age at final menstrual period. When the final menstrual period was unknown, it was accepted the age at clinic visit at first reported having undergone natural menopause or surgical menopause.

The women who fit the definition surgical and natural menopause had at least one year of amenorrhea/at least one year after surgery, serum levels of FSH > 20 mIU/mL and $E_2 < 40$ pg/mL to confirm post-menopausal status was included in the study. Currently taking hormonal treatment (oral or systemic), the presence of severe vasomotor symptoms that affected personality characteristics, history of heart attacks, stroke, severely reduced liver function, diabetes mellitus, thyrotoxicosis, mental disorders vaginal, uterine or cervical cancer, and having received treatment for cancer within the preceding 12 months was excluded from the study.

Blood samples were taken between 08:00 and 09:30 a.m. after a fasting period of 8–12 hours. Serum FSH, LH, E_2 levels were measured with electrochemiluminescence immunoassays.

Psychometric evaluation of each patient with the Turkish version of the MMPI, which contain of 566 questions answered as “false,” or “true” as applies to the patient was performed.

The scoring results in a standard profile that contain of three “validity scales” and ten “personality scales”. The validity scales contain of defensive, fake, and lie responses, and validated each profile. Subjects scoring beyond predefined limits on these scales answered the test with a bias, nullifying the results of the personality scales. They were not considered to be indicators of psychopathology per se.

The personality scales contain of hysteria, depression, hypochondriasis, psychopathic deviate, paranoia, schizophrenia, masculinity–femininity, psychasthenia, social introversion, and hypomania [8]. Results on the MMPI test are explained in standardized t-scores. Absolute scores were mean of standardized t-scores. The authors categorized dichotomously each individual subject in terms of whether or not each scale fell in the clinically elevated range. Elevation was described as t-score > 65 .

All clinical parameters were explained as mean \pm SD, as well as percentages (for categorical variables). Surgically and naturally menopausal women were compared using One-Way ANOVA for continuous parameters and the Chi-squared test for categorical parameters.

A p-value of < 0.05 was thought to be statistically significant. Education was categorized as followers (none = 0, primary school = 1, secondary school = 2, and high school = 3). Multiple linear regression was made to define the relative contribution of possi-

Table 2. — The predictors of hypochondriasis in patients with menopause in multivariate model.

	Hypochondriasis t score		R ²
	Beta	p-value	
			18%
Interception		0.0001	
Age	0.10	0.4	
Education	0.10	0.4	
Menopause duration	-0.09	0.5	
Surgically menopause	0.43	0.004	
Serum FSH levels	-0.10	0.5	
Serum LH levels	-0.19	0.1	
Serum E_2 levels	-0.03	0.8	

ble confounding factors to hypochondriasis t-score.

Results

Surgically menopausal women compared to naturally menopausal women had a similar age (48.2 ± 5.3 vs. 49.3 ± 5.5 , $p = 0.04$, respectively). Surgically menopausal women compared to naturally menopausal women had significantly higher absolute scores on hypochondriasis (Hs) (66.4 ± 9.2 vs. 57.1 ± 8.0 , $p = 0.001$, respectively) (Table 1).

Surgically menopausal women compared to naturally menopausal women had significantly higher rate of clinical elevation on both depression (40.0 vs. 13.0% , $p = 0.007$, respectively) and Hs (60.0 vs. 14.8% , $p = 0.001$, respectively) (Table 1).

Hypochondriasis t-score in patients with menopause was associated with the presence of surgically menopausal status after adjusting for possible confounding factors in multivariate model (Table 2).

Surgically menopausal women compared to naturally menopausal women had lower serum levels of FSH (31.0 ± 24.0 vs. 60.0 ± 38.6 , $p = 0.01$, respectively).

Surgically menopausal women compared to naturally menopausal women had similar serum levels of LH (17.5 ± 14.1 vs. 28.6 ± 20.2 , $p = 0.07$, respectively).

Surgically menopausal women compared to naturally menopausal women had similar serum levels of E_2 (20.3 ± 5.1 vs. 20.4 ± 9.6 , $p = 0.09$, respectively).

Discussion

The present study indicates that surgically menopausal women have a significantly higher rate of clinical elevation on both depression and Hs. In addition, surgically menopausal women have significantly higher absolute scores on Hs. Multivariate analysis also confirms the significant effect of surgically menopause's presence on Hs. Menopause type may change psychological state. Accordingly, surgically menopausal women had relatively greater psychopathology than natural menopausal women, with elevations and higher absolute scores on Hs scale, indicating somatic concerns. Symptoms may require treatment. Changes in the personality traits of menopausal women are not well defined. There is not enough information in the literature in this regard. As partially similar, Ushiroyama and Sugimoto indicated that patients experiencing climacteric disorders and the ovarian deficiency syndrome had slightly higher MMPI Alexithymia Scale scores than healthy middle-aged women [9]. A another study in 75 cases indicated that hysterectomy induced more problems than natural menopause but there was no major change in the psychological profile [10]. When considered together, it is important that the personality traits such as hypochondriasis should be foregrounded due to the characteristics of surgical menopause.

Hypochondriac individuals have some personality traits that are unique to them. There is a tendency for these individuals to have unclear and non-specific complaints. There were not significant anxiety and depression signs. They are self-centered, selfish, narcissistic, socially participative, friendly, talkative, vigorous, insatiable, and unhappy. There are conversion disorders on the ground. They may not be accepted by the social group and they may be unhappy in marriage. They have problems with the authority figure. Interpersonal relations are superficial and childhood. They expect interest and love from their surroundings. They rarely complain of delusion, hallucinations, and delirations. In the family story there is rejection of the father and the interventionist mother figure.

Vasomotor symptoms, urogenital atrophy, sleep disturbance, somatic symptoms, sexual dysfunction, cognitive difficulty, and psychological problems may emerge in the postmenopausal women. Some of these effects are closely related with estrogen deficiency, whereas the exact mechanism underlying the other symptoms is not fully understood. Medically unexplained physical symptoms, psychological distress, and health-seeking behavior is known as somatization [11]. Data from 170 women aged 45 to 54 years, personality and coping skills were related with perceived stress during the menopause; transition. In

addition, recovering women's stress-coping ability may reduce the stress associated with menopausal symptoms [12].

Some changes in personality traits may occur in menopause. Personality traits of surgically menopausal women, when the ovarian production of estrogen as well as androgen ceases abruptly, may be different from those of natural menopause. Present study indicate that surgically menopausal women are relatively more overworked with their bodies, so they complain of chronic fatigue, pain, and weakness, indicating hypochondriacal personality features. Surgical menopause take the foreground hypochondriac personality traits because of its unique characteristics. The assessment of underlying psychological disorders is required for the management of surgically menopausal women presenting with these somatic symptoms. Reducing psychological distress can potentially improve health outcomes among menopausal women.

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