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Status menopauzalny i przeszłość położniczo-ginekologiczna a jakość życia kobiet w wieku 45-65 lat

Influence of menopause and obstetric-gynaecological history on the quality of life in 45-65-year old women

Streszczenie

Cel. Celem pracy było ustalenie, czy status menopauzalny i przeszłość położniczo-ginekologiczna kobiet w wieku około- i pomenopauzalnym mają wpływ na ich obecną jakość życia.

Material i metody. Badanie zrealizowano metodą sondażu diagnostycznego, techniką ankiety pocztowej. Narzędzie badawcze stanowiły trzy standaryzowane kwestionariusze: Women's Health Questionnaire (WHQ), WHOQOL-BREF i SF-36. W badaniu wykorzystano również ankietę własnego autorstwa. W roku 2007 wysłano ankietę pocztową do 7875 kobiet w wieku 45-65 lat, mieszkających na terenie województwa lubelskiego. Adresy reprezentatywnej próby mieszkańek województwa lubelskiego w tym wieku otrzymano z Terenowego Banku Danych Urzędu Wojewódzkiego w Lublinie. Otrzymano 2143 listy zwrotne (zwrotność 27.2%). Uzyskane dane poddano analizie statystycznej. Domeny jakości życia ustalone kwestionariuszami WHOQOL-BREF, WHQ i SF-36 przyjęto jako zmienne zależne, natomiast dane z wywiadu ginekologicznego kobiety jako zmienne niezależne.

Wyniki. Kobiety po menopauzie naturalnej lub chirurgicznej cechowały się znacząco gorszą jakością życia niż kobiety miesiączkujące. Gorszą jakość życia wykazano także u kobiet, które kiedykolwiek w życiu poroniły i u kobiet, które aktualnie chorowały na schorzenia ginekologiczne. Kobiety cierpiące na nietrzymanie moczu charakteryzowały się istotnie gorszą jakością życia niż respondenci bez tej dolegliwości. Analiza regresji logistycznej wykazała, występowanie nietrzymania moczu należało do najsilniejszych predyktorów gorszej jakości życia kobiet. Nie stwierdzono natomiast istnienia związku między wiekiem kobiet w chwili wystąpienia pierwszej miesiączki oraz liczbą ciąż i porodów w wywiadzie ginekologicznym, a jakością życia kobiet.

Abstract

Aim. The aim of the research was to determine if the quality of life of women depends on their menopausal status and their obstetrical and gynecological past.

Material and methods. The study was carried out with the survey method, with the postal questionnaire technique. Three standardized questionnaires: WHOQOL-BREF, Women's Health Questionnaire (WHQ) and SF-36 were used as research tools. An author-designed questionnaire was also used. The questionnaires were sent to a representative sample of 7,875 women between 45 and 65 years old, living in the Lublin province, in 2007. The mail addresses were obtained from the Local Data Bank of the Lublin Provincial Office. We received 2,143 replies (feedback 27.2%). The statistical analysis of the obtained data was performed. The domains of quality of life defined by the WHOQOL, WHQ, SF-36 questionnaires were treated as dependent variables, the data from women's obstetrical and gynaecological past were treated as independent variables.

Results. Postmenopausal women (natural or surgical menopause) revealed a significantly worse quality of life than pre- and perimenopausal women. The women who had an abortion and the respondents who currently suffered from gynaecological diseases demonstrated a significantly worse quality of life. Women suffering from urinary incontinence showed a significantly worse quality of life than the respondents free from this complaint. The logistic regression analysis proved that urinary incontinence was among the strongest predictors of a decreased quality of life. No statistical relationship was found between the women's age of menarche and the number of pregnancies and labours, and the women's quality of life.

Słowa kluczowe: jakość życia, status menopauzalny, wywiad ginekologiczny, WHOQOL, WHQ, SF-36.

Key words: quality of life, menopause, gynecological inquiry, WHOQOL, WHQ, SF-36.

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INTRODUCTION

Extension of human lifespan increases an interest in the improvement in quality of life. Currently, the average life expectancy of women in the developed countries is 75 years and the average age of menopause - 50 years. This means that postmenstrual stage constitutes one-third of women's lives and, undoubtedly, they would like to go through these years enjoying good physical and mental health. Medicine focused on improving the quality of life of those women, called menopausal medicine, is now one of the most dynamically developing medical disciplines. The quality of life is by assumption a subjective measure that is to mirror patients' point of view on their health state and, as such, constitutes an ideal parameter for the evaluation of health phenomena in the peri- and postmenopausal years, including the impact of therapeutic interventions. The evaluation is conditioned by extremely complex interactions that women's health is subjected to during this crucial stage of their lives, from somatic consequences of suspension of ovarian endocrine functions to profound changes in their family, professional and social situation [1].

AIM

The aim of the study was to determine whether menopausal status and obstetric-gynaecological history of women at the peri- and postmenopausal age could influence their current quality of life.

MATERIAL AND METHODS

The study applied the diagnostic survey method realised by means of a mail questionnaire. Research tools included three standardized questionnaires (Women's Health Questionnaire - WHQ, WHOQOL-BREF and SF-36) and the author-designed questionnaire. Questions concerned women's menopausal state and basic gynaecological history (number of pregnancies, childbirths, miscarriages, menarche age, urinary incontinence, incidence of gynaecological diseases). In 2007, the mail questionnaire was sent to 7,875 women aged 45-65, residents of the Lublin province. The addresses of the representative sample were obtained from the Local Data Bank of the Provincial Office in Lublin. The total number of 2,143 questionnaires were answered (27.2% return rate).

The obtained data were subjected to statistical analysis. The quality of life domains measured by WHOQOL-BREF, WHQ and SF-36 questionnaires were treated as dependent variables whereas the data concerning gynaecological history were considered as independent variables. Correlations between quantitative variables were estimated using Pearson's linear correlation coefficient. The analysis of qualitative variables was performed using t-Student test for two groups and the analysis of variance was made when more than two groups were compared. For multiple comparisons Dennett's T3 test was used. The comparison of two means using t-Student test was preceded by Levine's

test for homogeneity of variances. When the variances in both groups differed significantly, a modified test for heterogeneous variances was used. For comparison of more than two means from independent groups a one-way analysis of variance (one-way ANOVA) was used and preceded by Levine's test for homogeneity of variances. The study also included two strong tests for equality of means - Welch's test and Brown-Forsythe's test. The adopted significance level of $p < 0.05$ displayed statistically significant correlations. The second stage of statistical analysis involved stepwise logistic regression analysis used to eliminate possible disturbing influence of various independent variables. The values of dependent variables were dichotomized according to the median value.

RESULTS

The group studied included 20.9% of women menstruating regularly, 13.3% of women menstruating irregularly, 53.3% of those past natural menopause and 12.5% past surgical menopause. Statistical analysis of the obtained results revealed that women's menopausal status determined to a large extent their quality of life. Arithmetic means of the results obtained in individual domains of standard questionnaires depending on the respondents' menopausal status are presented in Table 1. The best quality of life in all the domains of standard questionnaires, with the exception of menstrual problems in WHQ, was noted in women menstruating regularly. With respect to menstrual problems, the best quality of life was experienced by women after natural menopause. The lowest quality of life was observed in women after surgical menopause. This did not apply, however, to the menstrual problems domain of WHQ and the environment domain of WHOQOL-BREF where the lowest quality of life was found in women menstruating irregularly. All these correlations were statistically significant ($p < 0.05$). Furthermore, logistic regression analysis revealed natural or surgical menopause to be an independent predictor of lower quality of life in the following domains: somatic symptoms, memory and concentration, vasomotor symptoms and sexual behaviour (WHQ) as well as physical functioning (SF-36).

In the studied group of women, the number of pregnancies ranged between 0 and 14 (arithmetic mean = 2.69, standard deviation = 1.56) and the number of childbirths fell within the range of 0 and 13 (arithmetic mean = 2.4, standard deviation = 1.38). Statistical analysis of the respondents' quality of life depending on the number of pregnancies and childbirths performed using Pearson's linear correlation coefficient did not reveal any correlation between the number of pregnancies and the women's quality of life. Similarly, no correlation was observed between the number of childbirths and the respondents' quality of life. Gynaecological history revealed that nearly three-fourths of the respondents did not have a miscarriage and 20.4% miscarried once or more times. The number of miscarriages given by the women ranged between 0 and 1, with arithmetic mean of 1.44 and standard deviation of 0.87. The quality of life analysis depending on the presence of miscarriages showed a lower quality of life in women who experienced miscarriage than in those

TABLE 1. Comparison of the detailed domains of WHQ, WHOQOL-BREF and SF-36 depending on women's menopausal status. Significant statistical dependences have been revealed in all the domains of quality of life ($p < 0.0005$)

The domains of standardized questionnaires	Women with regular menstrual bleedings		Women with irregular menstrual bleedings		Postmenopausal women (natural menopause)		Postmenopausal women (surgical menopause)	
	X	SD	X	SD	X	SD	X	SD
The domains of WHQ questionnaire	X	SD	X	SD	X	SD	X	SD
Depressed mood	0.26	0.26	0.34	0.29	0.33	0.28	0.35	0.28
Somatic symptoms	0.45	0.27	0.57	0.29	0.58	0.26	0.62	0.27
Memory/concentration	0.41	0.37	0.53	0.38	0.57	0.38	0.59	0.38
Vasomotor symptoms	0.28	0.39	0.49	0.42	0.56	0.42	0.57	0.42
Anxiety/fears	0.32	0.31	0.39	0.32	0.40	0.33	0.43	0.33
Sexual behaviour	0.32	0.33	0.43	0.36	0.53	0.35	0.54	0.35
Sleep problems	0.40	0.35	0.48	0.37	0.57	0.37	0.57	0.37
Menstrual symptoms	0.44	0.30	0.49	0.31	0.25	0.23	0.31	0.24
Attractiveness	0.39	0.35	0.46	0.35	0.49	0.37	0.50	0.37
The domains of WHOQOL-BREF	X	SD	X	SD	X	SD	X	SD
Physical health	15.82	2.52	14.84	2.73	14.46	2.78	14.11	2.63
Psychological	13.65	2.62	12.54	2.66	12.68	2.66	12.52	2.67
Social relationships	14.31	2.98	13.51	3.08	13.51	2.91	13.33	2.88
Environment	13.44	2.15	12.62	2.35	12.85	2.25	12.78	2.18
The domains of SF-36 questionnaire	X	SD	X	SD	X	SD	X	SD
Physical functioning	82.31	20.18	75.43	23.15	67.20	25.76	65.16	25.26
Physical role	73.41	26.67	66.93	25.34	58.07	26.05	54.32	27.32
Bodily pain	57.01	26.73	51.26	24.38	47.90	23.35	45.06	22.28
General health	58.37	19.14	53.45	19.66	49.86	18.67	47.91	19.06
Vitality	57.31	19.17	51.24	20.94	50.78	20.93	48.01	21.58
Social functioning	70.25	24.30	63.47	25.02	61.44	25.44	60.32	25.21
Emotional role	78.51	23.57	73.13	25.39	67.62	27.06	66.15	29.21
Mental Health	51.81	14.46	47.01	16.40	47.51	16.35	45.52	16.94

who did not. Statistically significant differences concerned the following domains: memory and concentration (WHQ), physical domain (WHOQOL-BREF), physical functioning, physical role, emotional role (SF-36) and the level of women's satisfaction with their health state ($p < 0.05$). The respondents were asked their age at menarche. The results ranged between 9 and 20 years (arithmetic mean = 14.19 years, standard deviation = 1.59 years). Statistical analysis of the respondents' quality of life depending on their age at menarche and performed using Pearson's linear correlation coefficient did not reveal any correlation between the women's age at menarche and their quality of life.

About one-fifth of the women (20.3%) experienced urinary incontinence. The complaint persisted from 1 month (2 women) to 45 years (1 woman); arithmetic mean = 5.15 standard deviation = 5.46 years. The quality of life analysis depending on the incidence of urinary incontinence showed a high influence of this complaint on the respondents' quality of life. A significantly lower quality of life was observed in all the domains of all three standard questionnaires in women suffering from urinary incontinence ($p < 0.001$). The respondents' quality of life was also analysed according

to the duration of urinary incontinence. T-Student test revealed a significantly lower quality of life in the women who suffered from urinary incontinence for 5 years or longer than in those who experienced it for a shorter period of time. Statistically significant correlations concerned three SF-36 domains (physical functioning, physical role, social role; $p < 0.05$).

Various gynaecological complaints were reported by 15.8% of the respondents, mainly uterine myoma (4.6% of all the respondents) and menopausal complaints (3.8% of all the respondents). Statistical analysis of women's quality of life depending on the occurrence of reproductive system diseases showed a strong relation between the presence of gynaecological diseases and the quality of life. Women suffering from gynaecological conditions were characterized by a lower quality of life than the remaining respondents in all the domains of standard questionnaires used in the study, excluding the attractiveness domain of WHQ ($p < 0.05$). A lower quality of life was detected in women suffering from chronic menopausal complaints. Statistically significant differences were found in nearly all the SF-36 domains (except for physical functioning),

most of the WHQ domains (excluding attractiveness) and physical and psychological domains of WHOQOL-BREF ($p < 0.05$). The incidence of uterine myomas had a slightly less negative impact on the respondents' quality of life. In this case, statistically significant differences were found only in vasomotor symptoms and menstrual problems of WHQ, the environment domain of WHOQOL-BREF, as well as somatic pain and social functioning of SF-36 ($p < 0.05$).

DISCUSSION

The study revealed that women's menopausal status exerted a profound influence on their quality of life. The highest quality of life was found in women menstruating regularly, and the lowest - in those past surgical menopause. Logistic regression analysis revealed natural or surgical menopause to be an independent predictor of a lower quality of life. Similarly, the results of a study by Bińkowska [2] indicated that entering menopausal stage had a substantial adverse effect on the respondents' quality of life in all the WHQ and SF-36 domains with the exception of menstrual problems of WHQ. The study was carried out in 2004 and included a representative group of 1,038 Polish women, aged 45-54. The results obtained by Budakoglu et al. [3] are also similar to our findings. Their study, carried out using SF-36, focused on the influence of menopausal status and age on the quality of life of women aged 40-80. It involved 338 female residents of a rural district of Ankara, Turkey. It revealed that postmenopausal women were characterized by a significantly lower quality of life than the menstruating ones in the following SF-36 domains: physical functioning, physical role, general health status, social functioning and mental health. Similar results were obtained by Chiu et al., who conducted in 2002 a large-scale study of 1,250 women, aged 43-77, residents of the southern part of the Chinese island of Taiwan. Using SF-36, the authors demonstrated a direct negative influence of menopausal complaints on the respondents' quality of life [4]. Our study results contrast with those obtained by Satoha and Ohashi [5], who estimated the quality of life of healthy Japanese women aged 45-55 using WHO-BREF questionnaire. Their study did not identify any statistically significant differences in the respondents' quality of life depending on their menopausal status (study included women in pre-, peri- and post-menopausal stage) in any of the four WHO-BREF domains. Different conclusions can result from the fact that Satoha and Ohashi studied a very small population (the study included only 187 women). Our conclusions oppose as well those reached by Anderson and Yoshizawa [6], whose study "The Australian and Japanese Midlife Women's Health Study", realized in 2001-2002, showed no influence of menopausal status on the women's quality of life in the general health status and physical functioning domains of SF-36. Similar conclusions were reached by Ozkan et al. [7] who compared the quality of life of women menstruating regularly with postmenopausal ones and did not find any statistically significant differences in any of the four WHO-BREF domains. The study included 171 menopausal patients of a hospital in Denizli, Turkey. Equally, no significant influence of menopausal status

on the quality of life was proved by Cheng et al. [8] in a cohort study of 734 female residents of the Chinese island of Kinmen. They performed a multifactor regression analysis and, having excluded the influence of other independent variables, showed that menopausal status did not affect the women's quality of life in any of the eight SF-36 sections and that the only independent predictor of their lower quality of life were vasomotor symptoms in the emotional role functioning section of the same questionnaire.

In our study, about one-fifth of the respondents (20.3%) suffered from urinary incontinence which significantly influenced their quality of life and was an independent predictor of a lower quality of life. Other authors give a slightly higher incidence of urinary incontinence in the Polish women at the peri- and postmenopausal age. Płachta et al. estimated this percentage at 33% [9].

Our study revealed that in all the domains of the three standard questionnaires the quality of life was significantly lower in women suffering from urinary incontinence than in the respondents free from this complaint. Logistic regression analysis proved urinary incontinence to be a strong independent predictor of the respondents' lower quality of life. Similar conclusions were reached by Saadoun et al. [10] who analysed the quality of life of French women aged 49-61, working in public utility enterprises. Using multifactor statistical analysis, the authors proved a lower quality of life in women suffering from urinary incontinence. Statistically significant differences were found in all the six scales of the Contilife questionnaire (Quality of Life Assessment Questionnaire Concerning Urinary Incontinence) – a specific tool for assessing the quality of life in women with urinary incontinence, and two scales of the Nottingham Health Profile general questionnaire. The study also showed that the more severe urinary incontinence, the more negative impact it had on the women's quality of life. The study by Bunyavejchevin [11] that involved Thai postmenopausal women also confirmed a strong negative influence of urinary incontinence on the respondents' quality of life. It revealed statistically significant differences in all the quality of life domains of SF-36: a lower quality of life in comparison to the control group was found in women suffering from stress or mixed urinary incontinence.

CONCLUSIONS

1. Women with natural or surgical menopause showed significantly lower quality of life than the menstruating ones.
2. A lower quality of life was also proved in women who experienced miscarriage and those currently suffering from gynaecological diseases.
3. Women suffering from urinary incontinence were characterized by a considerably lower quality of life than the respondents free from this complaint. Logistic regression analysis proved urinary incontinence one of the strongest predictors of a lower quality of life.
4. No relation has been detected between the women's age at menarche, number of pregnancies and childbirths and their quality of life.

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