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SOYBEAN REDUCE MENOPAUSE SYMPTOMS IN MENOPAUSE WOMEN

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A R T I C L E I N F O

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ABSTRACT

The decrease in estrogen production during menopause affects the quality of life with the appearance of menopausal symptoms and increases the risk of cardiovascular disease. Giving soy has the potential to reduce various symptoms and complaints of menopause because of its phytoestrogen content. This study aims to determine the effect of soy on menopausal symptoms. . quasi-experimental research design with pre-post control. The sample was selected using a purposive sampling technique with the criteria that they have experienced menopause for 1 year, are sexually active, have normal weight. The instruments used are observation sheets and MRS. Soybean was given for 30 days. Data analysis using T-Test . The results showed a significant difference in somatic and psychological symptoms after intervention (p = 0.00) while urogenital symptoms were not significant (p = 0.054) Giving soy reduces somatic and psychological menopausal women. It is necessary to research the effect of giving soy to menopausal women who are obese because of the different estrogen levels in this group.

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1. Introduction

In the United States, about 1.3 million women experience menopause each year, between the ages of 51 and 52. However, about 5% of women experience premature menopause between the ages of 40 and 45 years. In addition, 1% of women experience early menopause before the age of 40, due to permanent ovarian failure that may be related to sex chromosomal abnormalities (Burkard et al., 2019).

Menopause is a state of permanent cessation of menstruation for 12 months due to estrogen deficiency and is not associated with pathology. The median age of menopause is 51 years. Most women experience vasomotor symptoms, but menopause affects many other areas of the body such as urogenital, psychogenic, and cardiovascular (Dongol A, Deoju S, Shikharakar S, Rayamajhi SJ, Pradhan N, 2021; Soares, 2019; Valdes & Bajaj, 2021) from different races and ethnicities, experiencing various complaints (Ahmadieh & Jradi, 2021; Im et al., 2019)

Postmenopausal women in 40 to 65 years have moderate to severe menopausal vasomotor syndrome with a higher prevalence in Europe and the United States (40% and 34%, respectively) than in Japan (Nappi et al., 2021) symptom feels _ These include hot flashes, night sweats, palpitations, and migraines. Hot flashes often last about three to four minutes at unpredictable intervals that can be exacerbated by alcohol, eating, emotional stress, and fatigue. Migraine intensity and severity can change. Migraines without aura are more common than migraines with aura. Migraine with aura has an increased risk of stroke, especially if the woman smokes or uses oral contraceptives (Polo-Kantola & Rantala, 2019).

Vasomotor symptoms in premenopause (early-onset) or after menopause (late-onset) are associated with an increased risk of cardiovascular disease events. Identification of menopausal symptoms increases the chances for CVD risk management factors in postmenopausal women (Zhu et al., 2020).

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About 60% of women experience urogenital symptoms. These symptoms include vaginal atrophy, urethral atrophy, and sexual dysfunction (ie, decreased libido). Vaginal atrophy causes dryness, dyspareunia (painful intercourse). Urethral atrophy causes incontinence, stress, increased urination, dysuria (Polo-Kantola & Rantala, 2019.

Complaints are more severe at the beginning of menopause and change to become lighter as a woman's menopause increases. This is probably because the body has adapted to the low levels of circulating steroid hormones (estrogen and progesterone) (Gupta et al., 2018). Although this complaint is very common, it does not get serious attention so that it can become a chronic condition that can endanger the quality of life of healthy women. (Patni, 2019).

Psychogenic symptoms are experienced by 45% of women. These symptoms include anger/irritability, anxiety/tension, depression, sleep disturbances, loss of concentration, and loss of self-esteem/confidence (Polo-Kantola & Rantala, 2019).

Natural ingredients contain hormones or phytohormones that have been developed at this time to help reduce menopausal symptoms one of them is phytoestrogens. Phytoestrogens are plant substrates that have estrogen-like activity. Due to the similar structure of isoflavones and 17-ÿ-estradiol, able to bind to (Xiao et al., 2018.

Soy isoflavone has a significant effect on reducing hot flashes in menopausal patients (Kaur et al., 2020)Soybeans have been studied for their potential to reduce menopausal symptoms due to their phytoestrogen content (Glisic et al., 2018)alternative hormone therapy (Rizzo & Baroni, 2018).

2. Method

This research is a quasi-experimental research with pre-post control design. Calculation of sample size using the formula for the proportion of two populations obtained the results of 15 people. The sampling technique used purposive sampling with the inclusion criteria of women aged 45-55 years, had experienced menopause for 1 year, sexually active, normal weight. Exclusion criteria: suffering from heart disease, hypertension, kidney disease, malignancy, hepatitis, diabetes, using hormone therapy. Data collection techniques in the form of interviews and documentation of respondent data. The data collection instruments used were the respondent characteristic questionnaire and MRS (Menopause Rating Scale). The study procedure begins with screening begins, followed by taking a history of age and health history. The menopausal rating scale (MRS) was filled out 2 (two) times, before giving soy and after giving soy. Soybean is given in the form of milk by mixing 50 grams of soy powder into 200 ml of water in the morning for 30 days. Data analysis was carried out with the T-Test and Wilcoxon Test

3. Result And Discussion

3.1 Result

Distance The age of the women who were respondents in this study ranged from 4 8 to 5 5 years. The average age of the respondents was 5 2 years, with an average body mass index of 2 4.7 Kg/m^2 (48- - 55 Kg/m^2) and the median waist circumference of the respondents was 79 cm (75-80 cm). The study was conducted for 30 days in the working area of the Kuta Baro Health Center, Aceh Besar District.

TABLE1
DESCRIPTIVE ANALYSIS OF THE MENOPAUSE RATING SCALE (MRS) IN WOMEN AGED 45-55 YEARS

Number	Symptom	Pre Test			Post Test		
		Mean	F	%	Mean	F	%
1	Total	17.93	8	53.3	8	8	53.3
		< 17.93	7	46.7	< 8	7	46.7
2	somatic	7.53	7	46.7	3.67	6	40
		< 7.53	8	53.3	< 3.67	9	60
3	Psychological	8.67	8	53.3	4.67	7	46.7
		< 8.67	7	46.7	< 4.67	8	53.3
4	genitals	1.73	7	46.7	1	9	60
		< 1.73	8	53.3	< 1	6	40

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Table 1 above shows that the pre-test group has an average score somatic symptoms of the sample <7.53 (53.3%) and experienced a decrease in the average post-test group to <3.67 (60%). Psychological symptoms in the pre-test group had a mean score of 8.67 (53.3%) and decreased scores in the post-test group to <4.67 (53.3). Urogenital symptoms in the pre-test group has an average value of 1.73 (53.3%) and decreased in the post-test group to <1 (60%)

TABLE 2
ANALYSIS OF DIFFERENCES IN SOMATIC AND PSYCHOLOGICAL SYMPTOMS

Not	Symptom	Means	SD	P-value
1	Somatic	3,867	2,642	0.000*
2	Psychological	4,000	2,619	0.000*

The statistical test results in table 2 show a significant difference in somatic and psychological symptoms between the pre-test and post-test groups with a p-value of 0.000 (p <0.05).

TABLE 3
ANALYSIS OF DIFFERENCES IN UROGENITAL SYMPTOMS

Not	Symptom	Z	P value
1	Genitals	-1,930	0.0 54

Table 3 shows a significant difference in unexplained urogenital symptoms between the pre-test and post-test groups with a p-value of 0.054 (p < 0.05).

3.2 Discussion

This study provides the results that the administration of soy can reduce somatic and psychological symptoms. However, it has no significant effect on urogenital symptoms. This is suitable with previous studies that found soy reduces menopausal symptoms and improves the quality of life of postmenopausal women (Padmapriya & Latheef, 2018; Xiao et al., 2018)). Soy reduces hot flashes (Kaur et al., 2020), reduces fatigue (Hirose et al., 2018).

Menopause is a normal physiological process in aging women, in which the number of primary ovarian follicles decreases rapidly so that the amount is not sufficient to respond to the effects of FSH. In turn, there is no LH surge so that ovulation does not occur which results in decreased estrogen production and the cessation of menstruation (Polo-Kantola & Rantala, 2019).

Soybeans contain isoflavones. Isoflavone supplementation can be a secondary therapy in addition to HRT in menopause. The structure of isoflavones in soybeans is similar to that of 17 estradiol and capable to bind to estrogen receptors. genistein, the active compound in soybean, has a 20-30 times higher affinity for estrogen receptors than for estrogen receptors (Xiao et al, 2018). The effectiveness of this genistein varies between individuals depending on the amount consumed, concentration in serum, and (Yu et al., 2021)so that it can reduce (Khalid, 2020).

4. Conclusion

Administration of 50 grams of soybean for 30 days reduced somatic and psychological symptoms in women. It is advisable to do further research on the effectiveness of soy in overcoming menopausal syndrome in a number of groups of women with normal weight, overweight and obesity considering that the composition of estrogen in women is different based on their body weight.

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