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EVALUATING THE EFFICACY OF WILD YAM HORMONAL SALVE IN MANAGING MENOPAUSAL SYMPTOMS: A COHORT STUDY

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ABSTRACT

Background: Menopause is a natural process characterized by a reduction in certain gonadal hormones in females in their 40s. A lot of changes can be seen as the symptoms of menopause, such as those related to the central nervous system, metabolic changes, and weight gain, changes in cardiovascular health, urogenital and skin problems, and sexual dysfunction. Transdermal mode of delivery provides a practical and less risky alternative to oral consumption of drugs and also aims to serve as a better alternative to hypodermic injection. Topical Wild yam releases diosgenin, a precursor of gonadal hormone for managing menopausal symptoms and balancing hormones.

Methods: A cohort study was done on females of age 40-49 years, who were experiencing menopausal symptoms. The observation of a group of 34 females was done over time of 21 days (three weeks-three follow-ups) on **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** followed by placebo effect (14 days) to assess the impact of intervention. A purposive non-probability sampling technique was used to collect the data on designed questionnaire, to test the effectiveness of a natural balm, **Dr Skin BEAUTYTM Wild Yam Hormonal Salve**. An informed consent was taken from every participant before intervention.

Results: Throughout the three subsequent evaluations, there was a persistent pattern of escalating beneficial outcomes observed with extended utilization of the hormonal salve, **Dr Skin BEAUTY**TM Wild Yam Hormonal Salve. Most individuals did not encounter any adverse effects, which reinforces the salve's safety profile. The occurrence of night sweats showed a consistent improvement, reaching a relief rate of 82.3% after duration of three weeks. At the start, vaginal dryness was a common problem for 85.2% of participants. However, after 21 days, there was a significant improvement, with 73.5% of participants reporting alleviation. The study consistently showed a good trend in both sleep disturbances and mood disturbances, with a sustained improvement of 76.5% recorded at the final follow-up. The decrease in sexual desire elicited diverse reactions, with a significant rise in the number of individuals (47.1%) expressing positive changes after a period of 21 days. Considerable alleviation of symptoms such as hot flashes, and joint/muscle discomfort was seen, underscoring the importance of ongoing monitoring. Significantly, the issue of weight increase, which was a concern for 11.8% of participants at the beginning, showed no change

till last follow-up with the salve.

Conclusion: The study explores the potential effectiveness of **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** in reducing various postmenopausal symptoms over three weeks of treatment. Nonetheless, the variability in individual reactions underscores the complex nature of symptom management, emphasizing the need for personalized solutions and emphasizing the need for future research to gather a more precise understanding and establish customized treatment plans.

Keywords: Dr Skin BEAUTYTM Wild Yam Hormonal Salve, Menopause, Wild yam

1. INTRODUCTION

Menopause is a general phenomenon for women. It is a natural process characterized by a reduction in hormones such as estradiol and progesterone and increase of follicle-stimulating hormone (1). Several biological systems are affected by hormonal changes as the symptoms of menopausal transition in women. A lot of changes can be seen as the symptoms of menopause, such as those related to the central nervous system, metabolic changes, and weight gain, changes in cardiovascular health, urogenital and skin problems, and sexual dysfunction. Some menopausal symptoms might function as pointers for future health; acute vasomotor symptoms and sleep apnea might increase the risk of cardiovascular diseases; on the other hand, severe vasomotor symptoms, depression, and anxiety might affect normal brain function (2).

Due to the reduction in the levels of estrogen and reduced function of the ovaries, unpleasant symptoms can occur, which include hot flashes, sweats, lower levels of libido, vaginal dryness, the inability to sleep, depression, and cognitive problems. While some women might not be greatly affected by menopause symptoms, for others, these symptoms can be devastating, greatly disturbing their quality of life. Maximizing women's health and welfare throughout this transitional phase becomes increasingly important as life expectancy rises (3).

A number of options in hormone therapy are available for the management of vasomotor symptoms in menopause. Women who do not have a uterus should be given estrogen alone. Women with uteri usually require progesterone along with estrogen to avoid endometrial hyperplasia. Menopausal hormone therapy usually increases the low estrogen levels in women during menopause to normal levels seen during the reproductive years (3). There are a number of benefits associated with using hormonal therapy in the treatment and management of symptoms of menopause. But, there are many potential risks associated with this therapy, too. According to one research held in 2021, it was found that the risk of getting breast cancer is higher in women who are using hormone therapy for the management of Menopausal symptoms (4). Transdermal mode of delivery provides a practical and less risky alternative to oral consumption of drugs and also aims to serve as a better alternative to hypodermic injection. For hundreds of years, people have used substances topically as therapeutic agents, and a significant number of topical drugs have been invented to treat local conditions. In 1979, the United States of America approved the first transdermal system. It was a three-day system that was used to deliver scopolamine to treat motion sickness. Around 10 years later, nicotine patches were developed, which increased the popularity of transparent delivery among the general public. Today, several transdermal delivery systems are used for drugs such as progesterone, estradiol, fentanyl, lidocaine, and testosterone; more advanced patches are combination patches, which usually contain two or more types of drugs (5).

It is suggested that wild yam can be used to treat the symptoms of menopause, such as hot flashes, sweating, excessive vaginal bleeding, mood disorder, and decreased libido. It has also been studied that progesterone, in the form of saponins, can be extracted as an alternative to HRT (6). Scientific name for wild yam is Dioscorea villosa. It is a perennial plant with non-fleshy yet dry, thin, and crocked roots that develop horizontal branches of long creeping runners. Wild yam is endemic to North America and Anina and is referred to as colic root, twining, and tuberous vine. Diosgenin is found in wild yam species and has therapeutic qualities particularly for managing menopausal symptoms, comparable to those of other plants (7).

Diosgenin is a typical precursor for many hormonal medicines in the pharmaceutical sector, mostly

generated by Dioscorea species. It is frequently utilized as a precursor material in the production of a wide range of steroidal medicines. This steroidal sapogenin is gaining attention in the pharmaceutical sector as a possible starting material for the manufacture of oral contraceptives, sex hormones, and a variety of other steroidal medicines with anticancer properties. (8).

According to a study (9) , wild yam extract at high concentrations produces Progesterone induces progesterone receptor gene(PgR) and Presenilin 2(pS2) mRNA in Michigan Cancer Foundation-7 (MCF-7 cells) after around one day. The findings were halted when high affinity estrogen receptor antagonist(ICI 182,780) (1 μM) combined with the previously described therapy indicated anestrogen/ligand-dependent(ER-dependent)mechanism. Wild yam extract is known to reduce the amount of ER proteins and mRNA when tested through the western bot and reverse transcription-polymerase chain reaction (RT-PCR). ICI 182,780 reduced this action, confirming the estrogenic activity of yam extract. There has been some new research on its estrogenic action. The content of diosgenin in the yam species is relatively low. It cannot be converted to estrogen biochemically in vivo (10). As a result, it is not clear how yam consumption, if eaten to manage the symptoms of menopause, causes levels of estrogen to rise, what the mechanism is, and what are the active components in it.

In the context of menopausal symptoms, hormone replacement therapy was most frequently used against heart disease, osteoporosis, Alzheimer's disease, and hot flashes, but research supporting its potency is conflicting (9). However, estrogens are linked with side effects, like elevated risks of breast cancer. Alternative therapies, such as plant-based estrogens and phytoestrogens, have attracted the attention of the medical community, government departments, and the public (11). Phytoestrogens are a group that contains diverse nonsteroidal plant-based compounds that behave as estrogens after binding to estrogen receptors. ERa receptors are recently discovered ERB receptors. Despite their capacity to bind to estrogen receptors, they have 102 to 105 times less activity than 17estradiol. Despite their low Estrogen Receptor Binding Affinity(ER affinity), animal studies have shown in vivo effects, most likely because they are present in the body in considerably more significant amounts than endogenously generated estrogens (9). A research on yam and Diascorea has increased our understanding of their physiology and mechanisms of function. In menopausal women, replacing two-thirds of their primary foods with yam for 30 days boosted blood estrone levels. Diascorea data revealed antioxidant benefits in hyperhomocysteinemic rats by reducing thrombin-induced platelet aggregation, lipid peroxidation, and oxidative stress. Mice-fed lyophilized Taiwanese yam powder had a better upper gastrointestinal function and a lower cholesterol profile. Dioscorin, a glycoprotein derived from Dioscorea alata, is a new Toll-like receptor 4 (TLR4) activator that activates macrophages via TLR4 signaling pathways (9).

2. MATERIALS AND METHODS

2.1 Study Product

The product used in this study was **Dr Skin BEAUTYTM Wild Yam Hormonal Salve**, a natural product of Dr SkinTM BEAUTY. No any synthetic ingredients are available in this product.

2.2 Study Design:

The study followed a Cohort Study design, which involved the observation of a group of 34 females over time of 21 days (three weeks-three follow-ups) on **Dr Skin BEAUTY**TM **Wild Yam Hormonal Salve** followed by placebo effect (after 14 days) to assess the impact of intervention.

2.3 Study Hypothesis:

Null Hypothesis (H0): There is no significant difference in the reduction of menopausal symptoms among females aged 40 to 49 treated with **Dr Skin BEAUTYTM Wild Yam Hormonal Salve**.

Alternative Hypothesis (H1): Females aged 40 to 49 treated with **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** will experience a significant reduction in menopausal symptoms.

Study Population:

The study population consists of 34 females with ages between 40 to 49 who are experiencing menopausal symptoms, such as night sweats, hot flashes, vaginal dryness, sleep disturbances, mood disturbances, lower libido, joint ad muscle pain, changes in skin and hair and weight gain.

2.4 Sampling Technique:

The sampling technique used in this study was purposive or non-probability sampling. Participants were selected based on specific criteria, such as age and symptoms related to menopause, to ensure the relevance of the study to the target population.

2.5 Eligibility Criteria:

Inclusion criteria:

- All females who were between 40 to 49 years of age
- All females who were experiencing menopausal symptoms

Exclusion criteria:

- Those females who were not experiencing menopausal symptoms.
- Participants having age less than 40 or more than 49.
- Participants who were non-willing to take part in the study.

2.6 Data Collection Procedure:

The data collection procedure involved obtaining information from the participants on the designed questionnaire regarding their menopausal symptoms and the use of **Dr Skin BEAUTY**TM **Wild Yam Hormonal Salve**.

2.7 Data Analysis Procedure:

The data analysis procedure involved statistical methods to assess the effectiveness of **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** in managing menopausal symptoms. Common statistical techniques such as descriptive statistics, and inferential statistics (t-tests or chi-square tests), were employed to analyze the data and draw conclusions about the salve's role in managing menopausal symptoms.

2.8 Ethical Considerations

Consent was taken from all participants and they were explained about the purpose of data collection and study. Confidentiality of all record was ensured with anonymity of the respondents. Record was used for research purpose only.

3. RESULTS

This cohort study chose 34 participants to investigate the implications of a hormonal salve utilizing a questionnaire based on **Dr Skin BEAUTYTM Wild Yam Hormonal** Salve. Subsequent examinations were conducted in three follow-ups on 7, 14, and 21 days after collecting initial data on multiple post-menopausal symptoms. Similarly, the same cohort got a placebo treatment, which resulted (14 days) in the recurrence of menopausal symptoms when the salve application was discontinued. Table 1 presents the subject characteristics, such as their age. The sample size consists of 34 individuals, having age ranging from 40 to 49. The individuals had an average age of 44.7 years, with a standard deviation of 1.92, indicating minimal variation in age. Following table (Table 1) indicates age distribution of the participants.

Table 1.

	N	Minimum	Maximum	Mean age ±SD
Age	34	40.00	49.00	$44.7.00$ ± 1.92

Throughout the three subsequent evaluations, there was a persistent pattern of escalating beneficial outcomes observed with extended utilization of the hormonal salve, **Dr Skin BEAUTY**TM **Wild Yam Hormonal Salve**. Most individuals did not encounter any adverse effects, which reinforces the salve's safety profile. Significantly, the salve exhibited effectiveness in treating several symptoms associated with menopause, encompassing emotional and sleep disruptions, as well as particular physiological alterations such as sudden episodes of intense heat/hot flashes, night sweats, and vaginal dryness. These data indicate that the hormonal salve has a high likelihood of effectively alleviating various menopausal symptoms within a very brief timeframe. Nevertheless, the customized reaction underscores the need for tailored strategies in managing menopausal symptoms (**Table 2**).

The findings from the 21-day investigation on the effects of Hormonal Salve on postmenopausal symptoms demonstrate a subtle and intricate pattern of enhancement across several health markers. The occurrence of night sweats showed a consistent improvement, reaching a relief rate of 82.3% after a duration of three weeks. At the start, vaginal dryness was a common problem for 85.2% of participants. However, after 21 days, there was a significant improvement, with 73.5% of participants reporting alleviation. The study consistently showed a good trend in both sleep disturbances and mood disturbances, with a sustained improvement of 76.5% recorded at the final follow-up. The decrease in sexual desire elicited diverse reactions, with a significant rise in the number of individuals (47.1%) expressing positive changes after a period of 21 days. Partial alleviation of symptoms such as alterations in skin and hair, hot flashes, and joint/muscle discomfort was seen, underscoring the importance of ongoing monitoring. Significantly, the issue of weight increase, which was a concern for 11.8% of participants at the beginning, showed no change till last follow-up with the salve. Overall, the findings indicate a positive trend in reducing symptoms with the Hormonal Salve, with variable rates and levels of improvement observed for various menopausal symptoms throughout the 21-day duration. These findings emphasize the intricate nature of menopausal symptoms and emphasize the necessity for tailored strategies in addressing the many symptoms linked to this phase of life (Table 2).

Table 2. Postmenopausal Symptoms and Salve Treatment Over 21 days

Post-menopausal symptoms	Improvement Percentage %				Association Baseline with total period
	Baseline	After 7 days of salve	After 14 days of salve	After 21 days of salve	p-value
Night sweats	55.9 %	58.8%	76.4%	82.3%	0.000
Vaginal dryness	85.2%%	0.00%	64.7%	73.5%	0.039
Sleep disturbances	76.4%	58.8%	76.5%	76.5%	0.000
Mood disturbances	79.4%	58.8%	76.5%	76.5%	0.000
Lower libido	52.9%	23.5%	29.4%	47.1%	0.000
Change in skin and	55.9%	0.00%	5.9%	5.9%	0.195
hair					
Hot flashes	50.0%	0.00%	17.6%	50.0%	0.00
Joint & Muscle Pain	11.7%	0.00%	5.9%	11.8%	0.000
Weight gain	11.8%	0.00%	0.00%	0.00%	0.13

Note: Baseline indicates the prevalence of the symptom, while follow up indicates the improvement percentage after using Hormonal Salve. P-value shows the significance or insignificance among postmenopausal symptoms and the usage of Salve after 21 days.

Initially, the selected group of 34 women had common symptoms such as hot flashes, night sweats, vaginal dryness, sleep difficulties, mood disturbances, weight gain, and changes in libido and skin. After 7 days of applying the hormonal salve, the initial follow-up indicated that most participants (71%) reported positive results, including mood, sleep quality, and libido enhancements. Nevertheless, a significant proportion (29%) did not see any considerable alteration after using the

salve, suggesting variation in individual responses. Adverse effects were negligible, with a mere 6% of individuals experiencing symptoms of headache and irritation. Only a small fraction (6%) had adverse effects, while the majority (94%) reported no side effects.

The second subsequent assessment carried out 14 days following the initiation of Salve usage, revealed a rise in the proportion of those encountering favorable outcomes to 88%. This encompassed enhancements in night sweats, vaginal dryness, emotional state, sleep quality, sexual desire, and beneficial effects on the skin. Merely a lesser proportion (12%) remained unaffected by the salve, indicating a consistent although diverse reaction among the subjects. The prevalence of adverse effects remained minimal, with a little 3% experiencing headache and 97% reporting an absence of any side effects.

After 21 days of usage, the third follow-up showed additional improvement, with 91% of participants reporting positive results. This encompassed improvements in night sweats, hot flashes, vaginal dryness, mood swings, quality of sleep, lower libido, and beneficial impacts on the skin. A few (9%) of participants still indicated no significant alteration with the salve, highlighting the variability in individual responses. Adverse effects were limited, with only 3% of participants experiencing headache and the majority (97%) reporting no adverse effects.

4. DISCUSSION

Effect of Dr Skin BEAUTYTM Wild Yam Hormonal Salve on menopausal women were found to be effective. Many symptoms were observed by participants in the first phase, including vaginal dryness, night sweats, sleep difficulties, mood swings, lower libido, skin and hair changes, hot flashes, and weight gain. There is an apparent connection to a study conducted by (12) about the use of topical wild vam extract for the temporary relief of menopausal symptoms. They found that topical wild yam extract had no adverse side effects when used for short periods, although it has limited effectiveness in alleviating menopausal symptoms. A noticeable change happened after applying the salve for one week. There was an immediate exacerbation of symptoms as all participants had night sweats. On the other hand, a steady improvement was noted after 14 and 21 days. A randomized clinical study by (13) included postmenopausal women who took Salvigol or Cimifugol capsules for two months each. Wild yam is an active ingredient in the herbal remedies: Cimifugol and Salvigol. The incidence of night sweats was considerably decreased by Salvigol, going from 8.93 ± 6.350 to 2.53 ± 1.132 , and their length was lowered from 6.15 ± 4.394 to 1.95 ± 1.108 . In contrast, neither the frequency nor the duration of night sweats was shown to be significantly different in the Cimifugol group. Other symptoms also exhibited comparable favorable patterns. The prevalence of vaginal dryness, which was initially seen in 79.4% of individuals, had a substantial drop to 35.3% after 14 days and subsequently declined to 26.5% after 21 days. Data on herbal remedies indicated that wild yams were linked to reported improvements in health. The advantages encompassed the prevention of vaginal dryness in elderly women, the management of postmenopausal symptoms and menstrual cramps, the treatment of osteoporosis, the enhancement of sexual desire, and the alleviation of diverticulosis and gallbladder discomfort (14). During the three weeks, there were consistent improvements in sleep issues, mood swings, and decreased libido. The salve's effect on changes in skin and hair, heat flashes, and weight gain also showed favorable results. Participants saw significant relief from these symptoms, with a majority feeling free from symptoms during the research. In a study conducted by (15), the objective was to assess the effectiveness and safety of Diascorea alata (Wild yam) in the treatment of menopausal symptoms. During a 12-month randomized, double-blind, placebo-controlled experiment including 50 menopausal women, it was shown that the group taking Diascorea saw a notable improvement in clinical symptoms, especially in psychological aspects such as anxiety. The research period revealed that standardized extracts of Diascorea alata had a safe and favorable impact on blood hormone profiles, thereby providing alleviation for menopausal symptoms.

Together, these results provide strong evidence that **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** effectively reduces menopausal symptoms. This study sheds light on the possible efficacy of

this intervention for menopausal symptom management and opens the door to further studies along these lines.

Significance baseline data with 21st day Intervention

The study demonstrated substantial improvements in several symptoms experienced by women after menopause throughout the intervention duration. Significant changes were seen in many symptoms, including night sweats, vaginal dryness, sleep disturbances, mood disturbances, lower libido, hot flashes, joint and muscle discomfort, from the initial measurement to the subsequent measurements at 7, 14, and 21 days (p-value < 0.05=0.00). However, no notable variations were observed in the skin and hair conditions as well as weight gain at subsequent intervals (p-value > 0.05) (**Table-2**). The results indicate that the hormonal salve treatment significantly reduced various menopausal symptoms, highlighting its potential effectiveness in enhancing women's health throughout the post-menopausal phase. Ingestion of Yam has been linked to significant changes in steroid hormone levels in the human body (**16**). Following yam consumption, blood concentrations of estrone (26%) and sex hormone-binding globulin (SHBG, 9.5%) increased significantly, with a near-significant increase in estradiol (27%). However, no significant increases in blood levels of dehydroepiandrosterone sulfate, androstenedione, testosterone, follicular-stimulating hormone, or luteinizing hormone were found (**10**).

The active cream and the placebo had a minor impact on diurnal flushing, non-flushing symptom scores, and night sweating in the single double-blind, crossover randomized controlled trial (RCT) on 23 healthy women experiencing menopausal symptoms. Notably, statistical research found no statistically significant difference in the effects of placebo and active creams (12). These findings add an exciting dimension to our knowledge of yam-based therapies, emphasizing the importance of thorough research in the context of menopausal symptom management.

Non-persistent and Persistent symptoms

Improved sleep and a pleasant mood, reduced vaginal dryness, increased libido, and relief from hot flashes were among the effects across all three follow-ups, showing lasting relief with Hormonal Salve. The consistent patterns observed show that the Hormonal Salve has a favorable and long-lasting effect on these specific combinations of symptoms throughout the 21-day study (**figure 1**). Despite the salve intervention, 52.9% of subjects still had chronic hair and skin changes, indicating that the salve is ineffective for a significant minority. Approximately 14.7 % still reported weight increase, indicating that this symptom is ineffective. (**figure 2**).

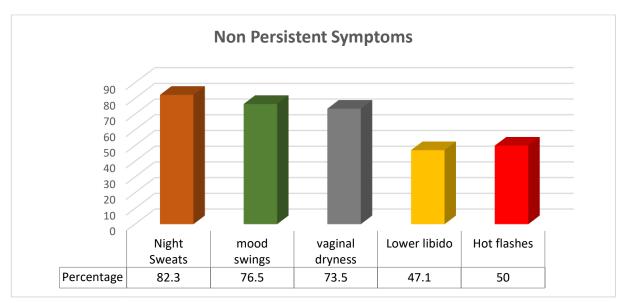


Figure 1. Non- Persistent symptoms throughout the study phase

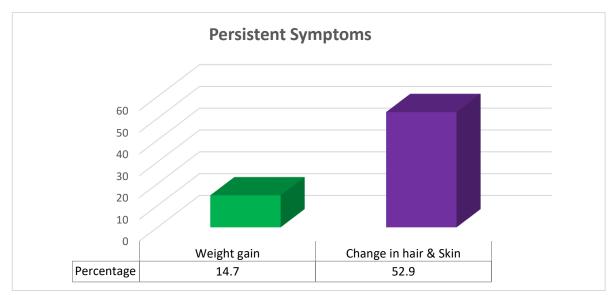


Figure 2. Persistent symptoms after the usage of Salve

While the salve significantly decreased particular symptoms for most patients, a subset continues to have symptoms, emphasizing the need for personalized methods. These findings highlight the complexities of postmenopausal symptom responses and emphasize the need for more investigation. Additionally, the result agrees with previous studies, such as Komesaroff's (12) discovery that wild yam had no significant effect on numerous metrics.

Side effects

After the initial 7-day follow-up, only 2 individuals (0.05%) out of the 34 reported experiencing side effects of using salve. One person had a headache, while another indicated irritability. Later, after 14 days, just one participant (0.02%) from the prior follow-up mentioned experiencing a headache. After 21 days, the same individual still reported headaches as a negative effect. Conversely, 97% of participants indicated their contentment with the salve, validating its effectiveness.

Recurrence of symptoms (Placebo follow up)

The post-intervention placebo outcomes in 34 subjects demonstrate a diverse reoccurrence of menopausal symptoms. Participants encountered recurrences in symptoms including night sweats (47%), hot flashes (47%), vaginal dryness (70%), joints and muscles pain (11.7%), disrupted sleep (76.4%), disturbed mood (73.5%), and libido disruptions (35.2%) (**figure 3**). Some individuals reported no notable disparity, while others demonstrated recurrences in particular symptoms or confluence. These data indicate that the placebo did not offer long-lasting relief from menopausal symptoms, resulting in the reappearance of numerous discomforts recorded during the beginning stages of the trial. The various patterns of symptom recurrence emphasize the intricacy of managing menopausal symptoms and emphasize the necessity for more research on effective therapies for long-term relief. Cell-based studies have shown that wild yams do not mimic the actions of estrogen or progesterone (9). In a double-blind, placebo-controlled research including 23 menopausal women, consuming wild yam did not reduce hot flashes or increase progesterone and estrogen levels (17). In contrast, a different study on 50 menopausal women discovered that taking a 12 mg sachet of the yam species Diascorea data twice daily for 12 months was more effective than a placebo in lowering menopausal symptoms (15).

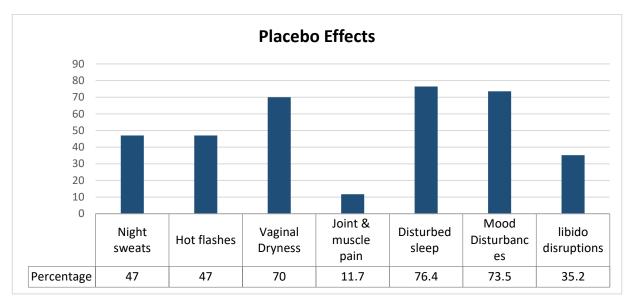


Figure 3. Reoccurrence of symptoms after discontinuation (Placebo Effect)

5. CONCLUSION

The study explores the potential effectiveness of **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** in reducing various postmenopausal symptoms over three weeks of treatment. The majority of individuals reported improvements in symptoms such as night sweats, hot fashes, vaginal dryness, mood changes, and libido issues, demonstrating that the salve works. Nonetheless, the variability in individual reactions underscores the complex nature of symptom management, emphasizing the need for personalized solutions. The findings add to the debate over alternate therapies for menopausal symptoms, emphasizing the need for future research to gather a more precise understanding and establish customized treatment plans.

Implications

The study proposes that **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** shows potential as an effective and non-invasive intervention for the management of menopausal symptoms, such as night sweats, hot flashes, vaginal dryness, mood disorders, and libido problems. The data demonstrates a favorable trajectory in alleviating symptoms over three weeks, indicating that prolonged use of hormonal salve might be a secure substitute for hormone replacement treatment, particularly for women experiencing fewer adverse effects. The study supports implementing a customized method for addressing menopausal symptoms, recognizing the unique reactions of individuals, and the necessity of individualized techniques to enhance the effectiveness of interventions. The lasting influence of the **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** establishes it as a potential option for offering long-lasting and significant alleviation for females dealing with the intricacies of menopausal symptoms.

Limitations

There are valid questions regarding the generalizability of the study's results due to the small sample size of 34 individuals. The external validity and strength of the evidence would be improved with a bigger and more varied sample. Because of the placebo effect, it is difficult to say how effective the salve is; a larger trial is needed to determine its precise benefits. While there is encouraging evidence that **Dr Skin BEAUTYTM Wild Yam Hormonal Salve** can alleviate menopausal symptoms, the study does not go into sufficient detail to determine how it does so. Future investigations into metabolic pathways and active ingredients may reveal a more complex picture.

CONFLICT OF INTEREST

The authors declare no conflicts of interest regarding the publication of this paper.

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Not Applicable

References

- 1. Hess R, Thurston RC, Hays RD, Chang CCH, Dillon SN, Ness RB, et al. The impact of menopause on health-related quality of life: results from the STRIDE longitudinal study. Qual Life Res. 2012;21:535–44.
- 2. Monteleone P, Mascagni G, Giannini A, Genazzani AR, Simoncini T. Symptoms of menopause global prevalence, physiology and implications. Nat Rev Endocrinol. 2018 Apr;14(4):199–215.
- 3. Shifren JL, Crandall CJ, Manson JE. Menopausal hormone therapy. Jama. 2019;321(24):2458–9.
- 4. Flores VA, Pal L, Manson JE. Hormone therapy in menopause: concepts, controversies, and approach to treatment. Endocr Rev. 2021;42(6):720–52.
- 5. Prausnitz MR, Langer R. Transdermal drug delivery. Nat Biotechnol. 2008;26(11):1261–8.
- 6. Dantas SM. Menopausal symptoms and alternative medicine. Prim Care Update OBGYNS. 1999;6(6):212–20.
- 7. Oladebeye AO, Oladebeye AA, Arawande JO. Physicochemical Properties of Wild Yam (Dioscorea villosa) Starch. Hashemi Gahruie H, editor. Int J Food Sci. 2023 Sep 29:2023:8868218.
- 8. Sadhan M. Anticancer Potential of Biologically Active Diosgenin and its Derivatives: An Update. Current Traditional Medicine. 2024;10(1):67-80(14).
- 9. Park MK, Kwon HY, Ahn WS, Bae S, Rhyu MR, Lee Y. Estrogen activities and the cellular effects of natural progesterone from wild yam extract in mcf-7 human breast cancer cells. Am J Chin Med. 2009;37(01):159–67.
- 10. Wu WH, Liu LY, Chung CJ, Jou HJ, Wang TA. Estrogenic effect of yam ingestion in healthy postmenopausal women. J Am Coll Nutr. 2005;24(4):235–43.
- 11. Glazier MG, Bowman MA. A review of the evidence for the use of phytoestrogens as a replacement for traditional estrogen replacement therapy. Arch Intern Med. 2001 May 14;161(9):1161–72.
- 12. Komesaroff PA, Black CVS, Cable V, Sudhir K. Effects of wild yam extract on menopausal symptoms, lipids and sex hormones in healthy menopausal women. Climacteric. 2001;4(2):144–50.
- 13. Shayan A, Masoumi SZ, Soltani F, Niyatabesh RA, Moradkhani S, Farhadian M, et al. Comparing the Effect of Cimifugol and Salvigol on Night Sweats in Postmenopausal Women: A Single-blind Clinical Trial. J Midwifery Reprod Health. 2020;8(4).
- 14. OJIMELUKWE P, Muoasinam C, Omodamiro R. Current perspectives on the Nutrient composition and health benefits of yams (Discorea species). Int J Agric Environ Food Sci. 2021;5(2):179–90.
- 15. Hsu CC, Kuo HC, Chang SY, Wu TC, Huang KE. The assessment of efficacy of Diascorea alata for menopausal symptom treatment in Taiwanese women. Climacteric. 2011;14(1):132–9.
- 16. Shou C, Li J, Liu Z. Complementary and alternative medicine in the treatment of menopausal symptoms. Chin J Integr Med. 2011;17:883–8.
- 17. Haimov-Kochman R, Hochner-Celnikier D. Hot flashes revisited: Pharmacological and herbal options for hot flashes management. What does the evidence tell us? Acta Obstet Gynecol Scand. 2005;84(10):972–9.