
ACCEPTABILITY OF PARAGIS AS ANTI-DANDRUFF TREATMENT

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Abstract

This study aimed to assess the potential of paragis leaves and stems as a solution for eradicating dandruff and developing an effective treatment for individuals affected by this condition. The research involved three treatments: paragis with coconut oil, paragis with coconut oil and ylang-ylang, and paragis alone. Results indicated that all three treatments were effective in addressing dandruff. However, the treatment containing ylang-ylang exhibited a slower eradication rate compared to the treatment without it. Notably, the pure paragis treatment completely eradicated dandruff, albeit at a slightly slower pace than the first two treatments. In conclusion, this study found that the paragis with coconut oil treatment demonstrated the fastest effectiveness among the three options, suggesting its potential as an efficient remedy for dandruff. This research contributes to the development of natural anti-dandruff solutions and may benefit those seeking alternative treatments for dandruff management.

Keywords: Paragis, Ylang-ylang, anti-dandruff treatment.

1. INTRODUCTION

Dandruff is a common chronic scalp condition marked by flaking of the skin on your scalp. Dandruff isn't contagious or serious. Dandruff usually can be controlled. Mild cases of dandruff may need nothing more than daily shampooing with a gentle cleanser. More-stubborn cases of dandruff often respond to medicated shampoos. One of the most frequent causes of dandruff is marked by red, greasy skin covered with flaky white or yellow scales.

Dandruff due to fungus is extremely common, affecting close to 50% of the world's population and it also most prevalent between ages 15 and 50. Dandruff is a common condition, but it can be embarrassing and difficult to treat. Risk factors include having certain skin or medical conditions and the use of inappropriate hair products. Nordqvist (2017) stated that the causes of dandruff are people that have oily skin,

irritated and dry skin. Certain hair care products can trigger a red, itchy, scaling scalp, stress and not consuming enough foods that contain zinc, B vitamins, and some types of fats may increase the risk.

As an additional, according to Abdelwahab (2011) paragis has an Anti-inflammatory, Antibacterial, antioxidant, and cytotoxic properties. Paragis commonly called goose grass or wire grass in English; it is a tufted and glabrous grass. It thrives in warm countries, particularly in most regions of Asia and Africa. In the Philippines, paragis is found practically everywhere. Aside from gardens and farms, you will see it along river banks, on the roadsides, and even on little cracks of pavements.

A successful anti-dandruff shampoo not only has to provide superior anti-dandruff relief to ensure patient compliance. It also needs to offer excellent cosmetic and hair conditioning benefits at the same time.

The researchers also used Ylang-ylang as a scent in one of the treatments. Ylang-ylang (*Cananga odorata*) comes from flower petals of the large, tropical ylang-ylang tree. Ylang-ylang actually means "flower of flowers" and was given this name because of its sweet, floral scent the slim smooth-barked evergreen reaches about 25 m or 80 feet and is covered year-round with drooping, long-stalked, rich-scented flowers that have six narrow, greenish-yellow petals 5 cm or 2 inches long, so we use ylang-ylang for its natural thickening effect on hair and also its healing properties on the skin.

Levy (2015) stated that Ylang-ylang is considered an effective antidepressant; Relieving inflammation; blood flow and the scent also have the ability to positively impact emotions and can help create a calming, relaxing atmosphere in your home. Thus, this study has been conducted to come up with paragis leaves and stems extract that has a high antibacterial property.

2. RESEARCH METHODOLOGY

This research study is experimental and utilizes an observational method to assess the effectiveness of paragis extract as an anti-dandruff treatment. The participants in the study consisted of three individuals from Santiago City, Isabela, who voluntarily agreed, by signing a consent form, to participate in the study due to their persistent dandruff issues despite using anti-dandruff shampoos.

To achieve the study's objectives, the researchers employed an observational method specifically designed for this research. The study encompassed three treatment groups: the first involved the application of pure paragis extract, the second involved the combination of paragis extract with coconut oil, and the third involved the combination of paragis extract with coconut oil and ylang-ylang.

These various treatments were individually applied to three different participants to precisely gauge the product's effects.

The researchers created three distinct treatments, each replicated three times, in order to assess the efficacy of paragis. The evaluation of the three treatments was based on the number of days it took to completely eliminate dandruff. All treatments involved the application of a 10 ml quantity of the product to ensure the collection of reliable data. Participants applied the product at 8 AM and rinsed it out at 4 PM, as per their preferred timing. Subsequently, the researchers observed any changes, and participants were queried about the effects and alterations they experienced. The various treatments are detailed in Table 1:

	Amount of product	Time of which the products had stayed
Treatment 1 (Paragis with Coconut Oil)	Day 1-4 10 ml	8:00 AM- 4:00 PM
Treatment 2 (Paragis with coconut oil and ylang-ylang)	Day 1-4 10 ml	8:00 AM- 4:00 PM
Treatment 3 (Paragis)	Day 1-5 10 ml	8:00 AM- 4:00 PM

3. RESULTS AND DISCUSSION

Date: August 10, 2019

Process Conducted: Paragis with coconut oil (Treatment 1)

As for the product, the researchers observed that the paragis with coconut oil has a mild scent which the older people like younger participants find it strong. The color of the extract was yellowish and has less viscosity.



Date: August 10, 2019

Process Conducted: Paragis with coconut oil and ylang-ylang (Treatment 2)

The paragis with coconut oil and ylang-ylang has a sweet scent but the scent depends on the amount of ylang-ylang put in the extract. The color of the extract was greenish and when the researchers put the ylang-ylang in the extract the color became light and clearer. The texture was also has a less viscosity.



Date: August 10, 2019





Process Conducted: Paragis (Treatment 3)

As for the paragis extract, the scent was also mild but as the day past, the scent became strong and intolerable. The color of the extract was green but became brownish after a week but the effectiveness was still the same. It has a liquid texture.







Date: October 03-07, 2019

Process Conducted: Paragis with Coconut Oil (Treatment 1)

DAY 1		The participant was suffering from severe dandruff. On the first day of application, only few pieces were removed from the scalp of the participant.
DAY 2		On the second day of application, the flakes were removed and falling from the scalp of the participant.
DAY 3		On the third day of application, large amount of dandruff was removed from the participant's scalp.
DAY 4		On the fourth day of application, the dandruff of the participant was totally removed.






Date: October 03-07, 2019

Process Conducted: Paragis with Coconut Oil with ylang-ylang (Treatment 2)

<p>DAY 1</p>		<p>The participant has a severe dandruff on the left side of her scalp. On the first day of application, small pieces of dandruff were removed.</p>
<p>DAY 2</p>		<p>On the 2nd day of application, large area of dandruff was removed.</p>
<p>DAY 3</p>		<p>3rd day of application, only small pieces of dandruff was seen.</p>
<p>DAY 4</p>		<p>4th day of application and the dandruff from the participant's scalp is completely eradicated.</p>

Date: February 01-06, 2020

Process Conducted: Paragis only (Treatment 3)

DAY 1		The participant was suffering from a severe dandruff. On the first day of application, there was no major changes.
DAY 2		The dandruff of the participant was slowly removed.
DAY 3		Large area of dandruff was removed from the scalp of the participant.
DAY 4		There were still small flakes seen on the scalp of the participant.
DAY 5		The dandruff was totally removed from the scalp of the participant.

Discussion of the Conducted Observation

The researchers aimed to create three (3) different products: paragis with coconut oil, paragis with ylang-ylang, and paragis alone. While the paragis product was effective, the researchers found it to be odorless and believed it should have a pleasant fragrance.

Numerous procedures were required to produce this effective product. During the preparation of the coconut oil, the researchers ensured that the oil remained transparent in color. The paragis stems were cut into small pieces and cooked with the coconut oil, after which the researchers extracted the essence.

The paragis with coconut oil takes four days to completely eradicate dandruff. However, in treatment two (2), it also takes four days, but the effectiveness of the product decreases due to the addition of ylang-ylang. In treatment three (3), it takes five days of application before the dandruff is completely eradicated.

The final product, "Paragis as an Anti-Dandruff," proved to be highly effective in eliminating dandruff. On the first day of application, the subjects experienced some itching, but by the second day, the itchiness had subsided. After four days, the researchers observed that almost all of the dandruff had been removed.

The research findings demonstrated that paragis extract can indeed serve as an effective natural anti-dandruff treatment.

4. CONCLUSIONS AND FUTURE WORKS

Based on the objectives and findings of the study, the following are drawn:

1. The researchers observed that both the paragis with coconut oil and the paragis with coconut oil and ylang-ylang treatments were able to completely eradicate dandruff within four days, while the treatment using paragis alone required five days of application to achieve complete dandruff eradication.

2. Notable changes were observed on the second day of experimentation for all three treatments: paragis with coconut oil, paragis with coconut oil and ylang-ylang, and paragis alone. By the third day of the experiment, the dandruff continued to fade, and by the fourth day, it was completely gone. In contrast, the treatment with paragis alone achieved complete dandruff eradication after the fifth day.

3. With the assistance of the properties of coconut oil, dandruff can be completely eliminated within just four days, as evidenced by the treatment's results.

4. The researcher highly recommends to the future researcher for improvement of the product. To find more products that can be possible for the additional treatments.

References

- Adel S. Al-Zubairi, et al. (2011, June). Eleusine indica Possesses Antioxidant, Antibacterial and Cytotoxic Properties. Retrieved February 2020, from Hindawi: <https://www.hindawi.com/journals/ecam/2011/965370>
- Eslit, E. (2018, January 28). Paragis. Retrieved from https://www.Paragis/_/Wall/Street/International/Magazine9879/
- Eslit, N. (2018). Paragis. Retrieved 2020, from Wall Street International Magazie: <https://wsimag.com/wellness/35291-paragis>
- Eslit, N. (2018, January). Paragis. Retrieved February 2020, from <https://wsimag.com/wellness.35291-paragis>
- Gnanaraj, R. (2011, December 6). *Environ Health Prev Med*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3390565/>
- Iqbal, G. (2011, July 17). *Environment Health Prev Med*. Retrieved from <https://www.Eleusine/indica-possesses/antioxidant/activity9867/>
- Mayo Clinic Staff.(2016, July 14). *Patient Care & Health Information*. Retrieved from <https://www.mayoclinic.org/diseases-conditions/dandruff/symptoms-causes/syc-20353850>
- MT, E. (2014, Jaunary). The effect pf topical virgin coconut oil on SCORAD index, transepidermal water loss and skin capacitance in mild to moderate pediatric atopic dermatitis: a randomized, double-blind, clinical trial. Retrieved February 2020, from PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/24320105>
- PH, T. T. (2017). Goosegrass/Paragis-10 Potential Health Benefits, Use and General Information. Retrieved 2020, from The Tired Mama PH: <https://tiredmama-ph.blogspot.com/2017/11/goosegrassparagis-10-potential-health.html?m=1>
- Vineetha. (2019). Benefits of Ylang Ylang Essential Oil For Your Hair. Retrieved 2020, from Scratch Mommy: <https://scratchmommy.com/benefits-of-ylang-ylang-essential-oil-for-hair/>
- VM, A. A.-R. (n.d.). Comparing extra virgin coconut oil with mineral oil as a mosturizer for mild to moderate xerosis. Retrieved February 2020, from PubMed: <https://www.ncbi.nlm.gov/pubmed/15724344>
- Wang, V. & Xu, U. (2016, May 12). *Scientific Report*. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/>
- Wang, Y. (2018, October 22). *Holistic Health*. Retrieved from <https://www.verywellhealth.com/the-benefits-of-ylang-ylang-essential-oil-88793>
- Ware, R. (2017, September 22). *Medical News today*. Retrieved from <https://www.Coconu2/Ooil/20-Benefits/uses/andcontroversy8765/>
- Zhao Ji, T.(N.D) *Philippines medical plants*. Retrieved from <https://www./Paragis/Eleusineindica/wire/grassPhilippine/Medicinal/Herbs/Alternative/Medicine.>