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HERBS UESD IN POLYHERBAL ANTI-DANDRUFF HAIR OIL

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ABSTRACT: Hair is simple in structure. Hair is formed of an extreme protein called Keratin.The problems related with it incorporates male pattern baldness, raucous hair, absence of hair volume, molding, youthful turning gray, dandruff, diminishing of hair, bluntness then on. Polyherbal hair oils have always attracted considerable attention, when compared to synthetic drugs**.**Hair formulation of Neem , Bhrami,Coconut oil , Hibiscus, Castor oil that have traditionally been used to promote hair growth hand remove dandruff in different concentrations in the form of herbal oil were studied for their hair growth activity, refractive index, acid value, saponification value. Admirable results of hair growth were seen in formulation prepared by different methods of oils preparation technique.

Key words: Dandruff, Polyherbal, physical Parameters,Hair oil.

INTRODUCTION

Now a days there is a wide use of herbal cosmetics due to the belief that they have fewer side effects and better safety. Dandruff is becoming the major and very common problem of hair. Hair is one of the most important of our body that improves the overall appearance of a person.The hair fall, Dandruff**s,** split ends, grey hair are the major problem associated with persons hair.Hair, also with sebaceous glands, sweat glandsand nails, is among the most essential parts of the body, acting as protective appendages and integument accessory structures. Each hair develops in three stages: Anagen (growth),Catagen (involution), and Telogen (regeneration) (rest). The Anagen process will last from between 2 - 6 years. The growth activity of the hair increases during the catagen process, and the hair transitions to the next phase. The catagen phase lasts about 2-3 weeks. The telogen process occurs when the hairs enter a resting state. Dandruff is a non-inflammatory and chronic condition which is characterised in the most common dermatological skin problem, related to the scalp that is eminent by an excessive range of scalp tissue being affecte .The main symptom of dandruff is formation of scale on the scalp and it is frequently

associated with seborrhoea. Seborrhea is the precursor of seborrheic dermatitis . Dandruff characterizes excessive scaling of the scalp, patches of loosely adherent flakes; it is a universal scalp disorder usually accompanied by itching.

To overcome these problems, As a hair tonic, hair oil containing herbal medicines is used. Hair tonics and hair grooming aids are the two major categories of hair care products. Polyherbal hair oil is recommended and is used to treat a variety of hair problems. There are various methods available for the preparation of hair oils direct boiling method, paste method and cloth method. They stimulate hair growth, enhance hair charm, and prevent hair loss. Hair oil promotes hair growth while also moisturising the scalp, resulting in healthy hair. It always had been the dream of a person to have black, healthy, shiny and good quality hair. No matter they are long or short and to keep and maintain them are amongst the priority of all the people.

- **Role of Herbs in Polyherbal Hair oil:**

Sr. No	Name of Drug	Biological Name	Uses
1	Neem	(Azadirachta Indica)	Promote Healthy Hair Growth. Reduce Dandruff. Treat fungus Growth.
2	Brahmi	(Bacopa Monnieri)	Hair Growth
3	Hibascus	(Hibiscus Rosa-Sinensis)	Antidandruff
4	Castor Oil	Ricinus Communis	Moisturizer.
5	Coconut Oil	(Cocos Nucifera L.)	Moisturizer, Vehicle.

Table No. 1: List of Ingredients

- **FORMULATION OF POLYHERBAL HAIR OIL**

The formulationof poly-herbal hair oil was prepared by the following mentioned processes.

i) Cloth method
ii) Paste method
iii) Direct boiling method

i) **Cloth method:** The dried drug was weighed and tied in a muslin cloth. This cloth was then hanged in coconut oil base, with continuous boiling, stirring and finally the oil was filtered.

ii) **Paste Method:** Paste method was used where fresh fruit or pulp or the desired part of the plants were converted into paste with very little amount of water and kept overnight After this the wetted drug was mixed in coconut oil base *and* boiled with continuous stirring at a constant temperature, until the water droplets in oil stop knocking and the drug has completely extracted in the oil. The Oil was then filtered through a muslin cloth.

iii) **Direct Boiling Method:** The crude drugs were powdered, weighed and directly boiled in coconut oil with continuous stirring and heating until the drug had completely extracted in the oil base.

Fig. 1:- Direct boiling method Polyharble Hair Oil

➢ EVALUATION OF POLYHARBLE HAIR OIL

Physical and biological evaluations of the formulated polyharbal herbal oil were performed.

1] Organoleptic Property

Color, physical state, and odour were manually determined for various organoleptic properties.

2] pH

A pH metre was used to examine the pH of poly-herbal hair oil.

3] Viscosity

It is a calculation of a liquid's resistance to flow; the higher the viscosity, the greater the resistance to flow. Ostwald's viscometer was used to evaluate the viscosity.

4] Refractive index

Using a refractometer, it was determined.

5] Specific gravity

Initially empty specific gravity bottle was weighed. Then the same specific gravity bottle was filled with water and again weighed. Later specific gravity bottle was replaced with hair tonic and weighed again. Weights are noted and thus specific gravity of hair tonic was calculated. Weight of empty specific gravity bottle = w1gms.

Weight of specific gravity bottle with water = w2gms.

Weight of specific gravity bottle with hair tonic = w3gms.

Specific gravity bottle of water = 0.9961 g/cm3.

Specific gravity of hair tonic was calculated as ρ= w3-w1/w2-W1xρ

6] Acid value

Preparation of 0.1 molar solution Weighing 0.56 g KOH pellets and dissolved it in 100 mL distilled water while being constantly stirred The prepared 0.1 molar KOH solution was poured into the burette. Preparation of sample 10 ml of oil were taken and dissolved in 50 ml of a 1:1 ethanol/ether mixture that was vigorously shaken. Then 1 mL phenolphthalein solution was added, and it was titrated with a 0.1 molar KOH solution.

Acid value was calculated from the following equation**.**

Acid value = 5.61 x n/w

7] Saponification value

In a 250 mL conical flask, 1 mL of oil was correctly measured, and 10 mL of ethanol:ether mixture (2:1) was added. 25 mL of 0.5 N alcoholic KOH was mixed to this flask. The flask was held for 30 minutes and then cooled. Using phenolphthalein indicator, 0.5 N HCl was used to titrate the cooled solution.Amount of KOH in mg consumed was calculated as below.

Saponification Value = 28.05*(X-Z)/W.

8)Anti-dandruff activity:

1.Well Diffusion Assay :

Isolates from the dandruff was inoculated by swabbing on the surface of gelled media plates. Wells of 6 mm in diameter was performed in the PDA media, and each well filled with 50 µl of various concentrations of poly herbal hair oil. The plates were kept in laminar air flow for 30 minutes for proper diffusion of the extract and thereafter incubated at 37º C for 3 - 5 days. The radius for the zone of inhibition was measured in millimeters and recorded against the corresponding concentration.

➢ CONCLUSION :

This review gives knowledge about detail chemistry hairs with its problems and also provides their solutions. India has a wide variety of medicinal herbs with various cosmetic and healing properties. The herbal constituents chosen for the formulation of hair oil were reported to have anti-dandruff, hair thickening and hair fall control properties, which when used together elicited a synergistic effect in promoting healthy and shiny hair growth, All these drugs not only show remarkable activity but are also devoid of potential side effects as compared to synthetic drugs. In conclusion, oil is beneficial to prevent hair dandruff and loss caused by pollution and dull hair.

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