



REVIEW ON FORMULATION AND EVALUATION OF HERBAL ANTIHAIR FALL OIL.

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2] Abstract- nowadays herbal cosmetics have much more demands in the market all over the world. There are very wide spans of herbal cosmetic products to satisfy beauty. The presence of phytochemicals and botanicals in the herbal products have double stuff, one that they are used as cosmetics for body care and another that phytochemical amend the biological functions of human body naturally results in healthy skin and hairs. Herbal hair oil moisturizes scalp, converse dry scalp and dry hair conditions. It gives many essential nutrients which maintain normal function of sebaceous gland and reduce hair loss and promotes hair growth.

3] Keywords- herbal cosmetics, herbal hair oil, hair loss, phytochemicals

4] Introduction-

4.1. What is hair fall ?

Permanent hair loss from scalp or elsewhere on the body. It is also called as Alopecia

4.2 Causes-

A] ageing- all age there is senescence in all cells of the body and hair cells are one of them which shows sign of aging with hair loss and reduce hair growth, weaker strands and hair thinning. There is also greying of hair follicles with age. The regeneration potential in which falling hair fibres (catagen) hair are replaced with growing new hair follicles (anagen) hair reduce.




B] stress- stress is the one of the factor which is main key to hair fall problems, making it one of the biggest reasons of hair loss. however, hair fall due to stress is not permanent. It is recoverable and tiding over ones stresses will be the an ideal hair fall solution.

C] medication- hair fall is a common side effect after some allopathic medication. Hair fall caused to medication can be temporary and is reversible.

D] diet- hair fall problems can also be caused with lack of protein in diet. Deficiency of food rich in iron and vitamin B leads to hair fall. As your hair doesn't get enough nourishment, it weakens and tends to fall.

E] styling of hair- flat irons, curling tongs, and blow dryers may improve the appearance of hair temporarily but their regular use can cause permanent hair damage. The heat from these styling tools absorbed the moisture from the hair and excessive use can also cause damage to the hair follicles and scalp, making it another reason of hair loss.

Table 1: representing different herbs figures used in preparation of hair oil

Sr.no	Herbs	figures
1	Amla- Amla purifies blood and enhances hair natural colour by preventing premature greying of hair. It has antifungal and antiviral properties, which prevents dandruff and other fungal infection and improve scalp health.	
2	Tulsi-Tulsi is a cogent remedy for hair loss. It is prepensed as an essential ingredient in herbal hair loss treatment. The herb work by strentheni ng the hair roots, thereby curbing hair fall, prevent bacterial and fungal infection	
3	Alovera- Alovera pulp subsumes proteolytic enzymes which repairs dead skin cells conditioner and leaves your hair all smooth and shiny. It boster hair growth, prevent itching on the scalp, reduces dandruff and conditions your hair	

<p>4</p>	<p>Coconut oil- coconut oil nourishes the scalp and proffer shine to the hair</p>	
<p>5</p>	<p>Hibiscus oil- hibiscus flower are used to clout premature graying of hairs, prevents hair loss and split ends.</p>	
<p>6</p>	<p>Almond oil- almond oil is rich in vit E used in the treatment of hair loss and strengthen the hair.</p>	
<p>7</p>	<p>Jasmin oil- Jasmin flower serves as antimicrobial agent, conditioning agent and also gives good odour to the oil.</p>	

5] Material and method-

5.1. Formulation of antihair fall herbal oil:

Different ingredients used in the formulation of the herbal oil are presented in table no 1. Precisely all the dried and fresh herbs such as tulsi, amla, alo vera, hibiscus were weighed and grinded in the mixture and mixed well in 70% of almond oil. The above content was boiled for 20 min. and was filtered through muslin cloth. To the filtrate 25% coconut oil was added to make up the volume (100 ml) finally small amount of flavouring agent was added to the oil and it was placed in amber colour bottle.

Table 2: ingredient used in formulation of herbal oil

Ingredients	quantity
Amla	6%
Tulsi	2%
Aloe vera	4%
Hibiscus	5%
Coconut oil	20%
Almond oil	50%
Jasmin oil	10%

5.2 Evaluation of herbal hair oil:

The formulated herbal hair oil was levied to physical and biological evaluation.

1. sensitivity test:

The prepared herbal oil was applied on 1 cm skin of hand and exposed to sunlight for 3-4 min.

2. Acid value:

2.1 preparation of 0.1 molar solution:

Weighed 0.56 g koh pellets and dissolved in 100 ml of distilled water and stirred continuously. The prepared 0.1 molar KOH solution was filled in the burette.

2.2 preparation of sample :

10 ml oil was measured and dissolve in 50 ml of 1:1 ethanol and ether mixture and shaken vigorously. 1 ml of phenolphthalein solution was then added and titrated with 0.1 molar KOH solution.

2.3 saponification value :

To accurately weighed 1 ml of oil in a 250 ml of conical flask, 10 ml of ethano:ether mixture(2:1) was added to this, 25 ml of 0.5 N alcoholic KOH was added and was kept undisturbed for 30 min and the flask was cooled. This solution was titrated against 0.5 N HCL using phenolphthalein indicator. Similarly, the blank titration was performed without taking oil (sample). Amount of KOH in mg used was calculated using formula,

$$\text{Saponification value} = 56.1(B-S)N/W$$

Where,

B= volume in ml of standard Hydrochloric acid required for the blank

S=volume in ml of standard Hydrochloric acid required for the sample

N= Normality of standard Hydrochloric acid.

W=weight of the oil taken in gms for the test

3. *pH* : the pH of herbal hair oil was determined using pH meter.

4. viscosity :The viscosity was determined using Ostwald's viscometer.

6.Result and conclusion :

Herbal oil provides many numerous essential nutrients required to maintain normal function of sebaceous glands and reduces hair loss/fall and promotes hair growth. The utilization of herbal cosmetics enhanced many folds in personal hygiene and healthcare system.

Table 3 : role of herbs in herbal hair oil

Ingredient	Importances
Coconut oil	Moisturized dry hair
Almond oil	Treat hair loss
Tulsi	Anti bacterial
Hibiscus	Control premature graying
Amla	Strengthens the hair
Jasmin oil	Conditioning agent, provides good odour
Aloe vera	Boosting scalp health

Table 4: Evaluation of herbal hair oil

Evaluation parameter	inference
Sensitivity test	Non sensitive
Irritation test	Non irritant
pH	6.8
grittiness	Smooth
Acid value	4.5
Colour	Yellowish brown
odour	Aromatic

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