Preparation and Evaluation of hair mask using Red rice

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ABSTRACT:-
Hair is a most integral part of our body, which enhances the personality aspects in every human being. Most of the times women's are taking more care about hairs or grooming equipment's and also it's became need in today's professional life. Every human weather it's a men or women all are judge by its physical appearance, and hair style or maintenance of hair is became need.
Many peoples are now taking care of the health and getting attracted towards the natural or herbal cosmetic products which will not be harmful to the skin and free from irritation. Red rice (oryza sativa L.) it's a kind of rice variety famous for its nutritional value. By fermenting them all nutritional constituents get together and this kind of hair mask used as a natural conditioner to the hairs. The study claims that by simple technique and some simple house hold ingredients can become a good quality and less side effect cosmetic product. To treat the various hair problems like baldness, dandruff, and dryness of scalp also it helps to maintain the structure of hair.
Keywords:-Oryza sativa L, Fermentation, Conditioner,Baldness,etc.

I. INTRODUCTION:-
Every individual has some different personality. And according to that every person is different by their appearance, every person has different type of hairs some peoples have curly hairs some have blond hairs or some have short hair, genetics plays an important role in hair growth. But caring of hair is also mandatory in now a days. And people don't want that use of chemical product get harm to the hairs. Most of people are more attracted towards the natural homemade product to treat those conditions.
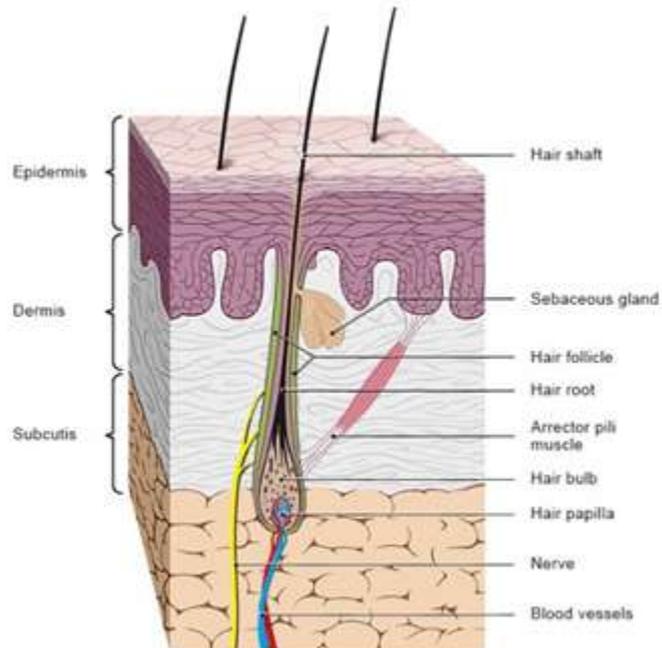
Hair mask its and cosmetic product primarily used to treat the dead scalp, dandruff, and nourishment to the hairs. Most of the womens by their homemade remedies trying to treat the problem but not satisfied by the methods. By using some organic product it can be treatable as well it's become satisfied.

Rice has some nutritional constituents which helps to treat the hair problems like dry or dead scalp , baldness, thinning of hairs, hair fall etc. by simple fermentation process we can be make simple organic hair mask which has less side effects and also economically very affordable. This study given you very helpful and very handy and easy to apply hair cosmetic product for nourish your hairs.

Structure of hair:-Hair it's a visible part of our body which ultimately express the personality of every human being. Typically hair has two part root and shaft. But as per consideration surrounding skin of hairs it's playing the important role in the nourishment of hair.
Hairs are extended towards deeper in the skin layer where sebaceous gland helps to nourishment of hairs and its follicals.
Hair mask acting on the surface of skin and hair. Hair mask generally used to strengthen the hairs and conditioner to the hairs which helps to improve the hair quality and helps to treat various hair conditions.

Composition of hair mask:-

Method of preparation:-

fermentation:- fermentation is the process which helps to produce collagen and contains large amount of antioxidant

whipping :- egg white contains vitamins A,D and Eproteins and fatty acids. whipping the egg white gives the thick and fluffy texture

grinding :- grinding the soaked red rice with fermented water to get thick paste like formulation.

mixing:- mixing the all ingredients and formulate thick paste like formulation.

packaging :- stored in dry wide mouth plastic container.

Importance of ingredients:-
Red rice variety has some various medicinal uses which improve the quality of the product and it's easily available in market.

Eggs are the most household ingredient in India and has some nutritional aspects for hair growth, shinning of hairs and smoothen the hairs.

Coconut oil has some tremendous uses for hair growth scalp nourishment and moisturize the skin.

Olive oil has good penetration power through which its get absorbed faster into the skin and strengthen the hair and preserve the moisture. And plays important role in preservation of product.
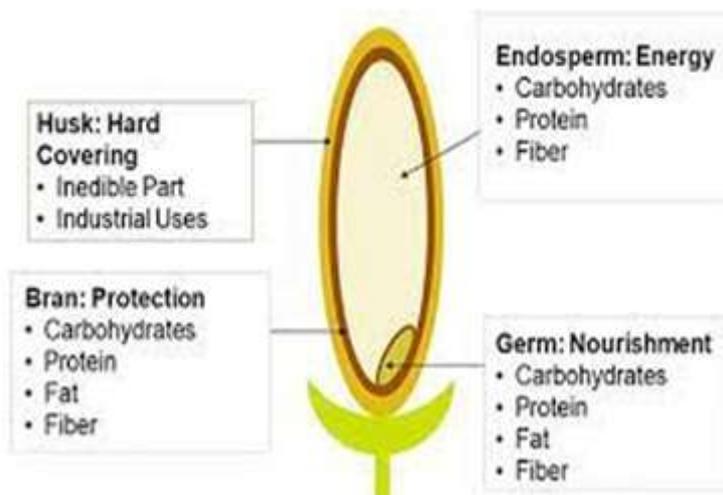
Fermented rice and egg white has some unpleasant smell to control that unpleasant smell adding some fragrance which will helpful for the use.

- **Why only Red rice**?

In Asiatic countries like India, China, Malesia, Japan, peoples are more prone to maintain their health and used of natural products than the chemical containing synthetic products. Red rice chemically called as a oryza sativa L. it's a famous variety of rice in china and India by its nutritional contains and all-purpose nature and its health benefits.

In India red rice it's seen in north and southern part of Indiabecause of its geographical conditions and suitable soil nutritions. Oryza sativaL. It's a species of rice has tremendous amount of acids, phenols, anthrocynin pigments, phytochemicals etc.

Red rice has more amount of various chemicals like zinc, iron, calcium,phosphorus etc. rice contains of oryzanol which helps to nourishment of hairs and many cosmetic products.

Egg white:-

Egg white is the natural conditioner used so long. Eggs are very rich source of vitamins like Vit .A,D, and E along with that proteins and fatty acids. Eggs helps to retain the shiny and silky appearance of the hairs. Hairs contain keratin which is a type of protein. Eggs helps to boost the protein content of hairs and make even strong and shiny. Also it help to give that thick consistency to the mask.

Coconut oil:-

In temperate region below 23°C coconut oil is concrete oil. Coconut butter is a white or pearl white unctuous mass, odourless or with peculiar coconut odour and bland taste. Its melting point is 23°C to 26°C. It is soluble in two volumes of alcohol at 60°C but highly soluble in chloroform, ether and carbon disulphide. The oil readily becomes rancid on exposure to air. The coconut oil has the highest saponification value, 250–264 and the lowest iodine value, 7–10 among the vegetable oils in common use.

Uses
- Coconut oil is used to improve hair and scalp health.
- It helps to get rid of some types of fungal infections.
- Helps to heal or prevent dandruff and other fungi on the scalp.
- It's a natural saturated fat. The high fat content in it may help calm scalp irritation, flaking, and itching. The fat in coconut oil can also help seal in hair moisture.

Olive oil:-

Olive oil usually its used as a house hold ingredient mainly in cooking , but apart from that olive oil has abundant amount of antioxidants and fatty acid which helps to nourish scalp and it acts as soothing ingredient in the hair mask. It has good penetration power and hence it's penetrate into the scalp and stimulate hair growth.

Olive oil usually made up of by crushing olives. It has antibacterial property through which it's used many of the cosmetic preparations.

Uses
- Olive oil used to nourish scalp and give thick consistency to the product.
- Olive oil has antibacterial property.
- Olive oil has good penetration power to get fast absorbed into the skin

Role of ingredient in hair mask:-

Ingredients	Uses
Red rice	Antibacterial effect, stop hair falling, strengthen the hairs.
Egg white	Conditioning the hairs
Coconut oil	Nourish the skin
Olive oil	Provide nourishment to the scalp

Fragrance	Mask the unpleasant smell.

Ingredients used in hair mask:-

Ingredients	Quantity
Red rice	25 gm
Egg white	50gm
Coconut oil	10gm
Olive oil	10gm
Fragrance	5 gm

Evaluation of hair mask:-

Evaluation parameters	Inference
Sensitivity test	Non sensitive
Irritation test	Non irritant
pH	7
Grittiness	smooth
Colour	White
Odour	Rosemary
Viscosity	6530 cP
Specific gravity	0.98-1.2

Procedure:-

As per the method of preparation collect the ingredients in required quantity ratio. For 100gm

1. Fermentation of rice:-

Take 25 gm of red rice(oryza sativa.L) unpolished rice slightly smashed it and soak into the q.s. ml of water for 48 hrs.in room temperature.

After 48 hrs.strain the fermented water and used for formulation.

2. Whipping of egg white:-

Take 50 gm of egg white and whisk it until its get in fluffy consistency.

3. grinding:-

Grinding the soak rice with fermented water in required amount to get thick paste like formulation.

4. Mixing:-

Mixing all ingredients into the paste of fermented rice and add some fragrance into it.

5. Packaging:-

Prepared hair mask cream stored into the wide mouth plastic container and tightly closed.

Label:-

Hair mask (100gm)	
Ingredients Red rice- Egg white- Coconut oil- Olive oil- Fragrance-	25gm 50gm 10gm 10gn Q.S.
Storage- store in cool place.	
Direction – apply gently on clean and dried hairs keep it for 10-15 min and wash it with sulphate free shampoo.	
Uses – used to strengthen hairs and moisturize the scalp.	

II. RESULT AND CONCLUSION:-

Red rice has many use in terms of dietary and cosmetic use in day to day life. Red rice contains some chemical constituents like starchy,oryzanol and amino acid also some nutritional content like calcium , phosphate etc. this constituents used to treat hair related problems like hair fall, dandruff, and dryness of scalp. This are very common problems in many womens . natural and homemade treatment on this kind of problems helps to recover fast and has less side effects.

Uses of chemical products has many side effects. This kind of hair mask has less side effects and use of this hair mask is very handful , and very affordable because its made up of some house hold products and easy to apply. Those starch content coat hair strand and give thickening effects to the hairs. Egg whites has natural conditioner effect which helps to shine the hairs. this kind of hair

mask prefer to use in now a days which is very natural and has no side effects.

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