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Formulation and Evaluation of Ayurvedic Antidandruff Gel

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Abstract:

Ayurveda is the ancient traditional medicinal system in India. It deals with the healing of the wound, treatment of the disease by using plant and the natural origin. In the modern era of science the Ayurvedic formulation is prepared by using the modern technique. The article give an idea of Ayurvedic formulation containing neem , aloe Vera , hibiscus amla and honey as an active ingredient which shows antidandruff, antimicrobial ,antihairfall ,etc. The evaluation parameters for formulation are: Physical parameters, spreadability, ph of the formulation, viscosity, antimicrobial activity, antidandruff activity, skin irritation test and stability study.

Keywords: Antidandruff, Skin irritation test, Neem.

Introduction:

Ayurveda is the oldest traditional alternative medicinal system of the India these systems gives the medicine of natural origin plant such as plant, shrub and herbs. The plant use as a medicine in the various forms such as leap, powder, bhsama, etc.

In the modern era of science the Ayurvedic formulations are prepared with modern technique with more accuracy, safety and effectiveness by applying modern technique such as extraction, mechanical starring, mechanical shaking etc and different software technique.

Dandruff: It is the common problem in the majority of the population it cause hair fall and hair loss due to which the appearance of the human is affected so there is a need of antidandruff formulations.

As there are many antidandruff formulation present in the market with chemical composition which is temporally solution for the problem and invitations to other problem.

So there is a need for a natural origin Ayurvedic formulation for the problem which contain natural ingredients and no synthetic chemical which has lesser side effect as compare to synthetic formulation.

Materials and Methods:

Materials: The ingredient such as Neem and Alma powder was prepared by collecting neem leaves local area of Aurangabad. Amla is collected from local market of Aurangabad. And hibiscus flower and alovera collected local area of Aurangabad. Honey is collected form local market of Aurangabad. The crude drugs are authenticated by H.O.D of Botonay, Maulana Azad College, Aurangabad.

Methods:**Formulation of Ayurvedic Antidandruff Gel:**

Sr.no	Ingredients	Quantity
1.	Neem powder	1 gm
2.	Amla powder	1 gm
3.	Hibiscus flower powder	1 gm
4.	Alovera	1 gm
5.	Honey	2 ml
6.	Xanthium gum	1%
7.	Lemon juice	0.1ml

Preparation of Gel:

Weight accurately given quantity xanthium gum and alovera gel dispersed in 50 ml of water with continuously stirring till it form gel like structure.

Preparation of Formulation:

Take required quantity of honey and add in it the given quantity of neem powder, hibiscus flower powder, and amla powder and lemon juice and mix well. Add this mixture slowly in above gum mixture with countious stirring and mix well until it form single phase.

Evaluation of Formulation:

Appearance: The formulation contains the neem powder, hibiscus flower powder and honey which affect the colour, appearance, etc.

PH: The Ph of the gel was checked at room temperature. The Ph meter was calibrated using the standard buffers of ph 4 and 9.2. Then 2 gm of gel was taken and dispersed in purified water. Then the Ph was measured and recorded.

Homogeneity: The gel was checked homogeneity by visual inspection. The gel was spread on the glass slide and inspected for ant lumps or coagulation.

Spreadibility: The gel was placed on a clean tile. Then the gel was spread on it.

Viscosity: Brook field viscometer was used to determine viscosity. The sufficient quantity of gel was taken in the beaker so that is allow to deep the spindle sufficiently. The rpm spindle was adjusted to 2.5 rpm. The viscosity of the formulation was recorded.

Skin irritation test: The skin irritation test was performed by using 20 human volunteers. 1 gm of the gel is applied on the 2 square inch area on backside of the hand of each volunteer. The volunteers were observed for any lesion and irritation.

Antidandruff Activity: This activity was studied using 20 human volunteers. This volunteers were distributed into 4 groups. Each group of 5 volunteers. First group is control, Second group were having volunteers with mild dandruff, Third group has the volunteers with moderate dandruff, Fourth group have high dandruff problem.

Stability test: The acceleration stability test was performed on the gel. The gel was kept in stability chamber was 3 months. And any change in colour, Ph, odour, etc was checked at a 1 month interval.

Results:

The colour of the gel is reddish brown with pleasant odour, slightly saline and bitter taste. It has slightly alkaline Ph. And semi soiled consistency, easily spread, with mild viscosity. The gel does not show any type of skin irritation. It shows good antidandruff activity in group II, III as compared to group IV. Gel shows satisfactory result in group IV. The dandruff was completely in groups III and II volunteers. But has partially clear dandruff in group IV volunteers. In stability testing the formulation shows no change at 0 month, 1 month, 2 month. But slightly change in the colour, odour and appearance was observed in the ending of 3 month.

Conclusion:

As mentioned in research work entitled “Formulation and Evaluation of Ayurvedic Antidandruff Gel”. The work was performed and found that the activity of were more effective on the volunteers having mild and moderate dandruff problem as compared to volunteers having volunteers having high dandruff issue. In case of volunteers having high dandruff problem there dandruff decrease to moderate within 1 month of the use of the formulation. The formulation was found to be stable at room temperature and 60 % relative humidity for around 86 days.

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