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Study of *Yavadi lepa* and its conversion into gel base formulations.

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Abstract:

People are more concern about cosmetics. They believe in safety and efficacy of *Ayurvedic* topical applications. Here gel and face wash are new dosage formulation and more acceptable by society as they are much convenient for application. Their is one reference found in Chakradatta Samhita about formulation of *Yava*, *Yashtimadhu* and *Lodhra* which is combined and used as *Varnyakar*. Aim-Preparation of *Yavadi lepa*, and it's conversion into gel and face wash. Objectives- To prepare and evaluate *Yavadi lepa*, To prepare and evaluate *Yavadi* gel and To prepare and evaluate

Yavadi face wash. Methodology-*Yavadi* gel and face wash will be prepared by using decoction of *Yava*, *Yashtimadhu* and *Lodhra*, *Methyl paraben*, *propyl paraben*, *Carbapol 940*, *SLS*, *TEA*, essential oil will be added for fragrance. Various physical parameters such as pH, colour, consistency will be evaluated. Result-The formulated gel and face wash will be evaluated by physical parameters and the results will be obtained. Conclusion-*Yavadi* gel and face wash contain all herbal ingredients so it will give beneficial effects to the skin.

Keywords- *Yavadi lepa*, new dosage, gel.

Introduction-

People are more concern about cosmetics. They believe in safety and efficacy of *Ayurvedic* topical applications. Here gel and face wash are new dosage formulation and more acceptable by society as they are much convenient for application. There is one reference found in *Chakradatta Samhita* about formulation of *Yava*, *Yashtimadhu* and *Lodhra* which is combinly used as *Varnyakar*.

Procedure

| <i>Lepa</i> | Quantity | Gel | Quantity | Face wash | Quantity |
|--------------------------------------|----------|---|----------|---|----------|
| Fine powder of <i>Tushrahit yava</i> | 1 part | Decoction of <i>Yava</i> , <i>Yashtimadhu</i> and <i>Lodhra</i> | 2-3% | Decoction of <i>Yava</i> , <i>Yashtimadhu</i> and <i>Lodhra</i> | 60 % |
| Fine powder of <i>Yashtimadhu</i> | 1 part | Carbapol 940 | 1% | Carbapol 940 | 1% |
| Fine powder of <i>Lodhra</i> | 1 part | TEA | Q.s. | TEA | Q.s. |
| Water | Q.s. | Water | Q.s. | Water | Q.s. |
| | | Methyl paraben | 0.50% | Methyl paraben | 0.50% |
| | | Propyl paraben | 0.50% | Propyl paraben | 0.50% |
| | | | | SLS | 2% |
| | | | | Propylene glycol | 2% |

Methodology

1. *Lepa*- fine powder of *Tusarahit Yava*, *Yashtimadhu* and *Lodhra* are measured in equal quantity. They all are mix together with required

Aim- Preparation of *Yavadi lepa*, and it's conversion into gel and face wash.

Objectives-

- To prepare and evaluate *Yavadi lepa*.
- To prepare and evaluate *Yavadi gel*.
- To prepare and evaluate *Yavadi face wash*.

quantity of water. The paste can be applied on skin.

- a. Equal quantity of fine powder of *Yava*, *Yashtimadhu* and *Lodhra*



- b. required quantity of water.
 - c. *Yavadi Lepa* consistency formed.
2. Gel- In 250 ml of water 2 gm of carbapol is added. When it dissolves completely, TEA is added till proper gel like consistency. Preservatives are added in last.
 - a. Decoction + carbapol 940 + TEA+ Preservatives
 - b.



- c. *Yavadi* gel like consistency
3. Face wash- in decoction of *Yava*, *Yashtimadhu* and *Lodhra* Carbapol is added. And on the other hand preservatives and SLS are dissolved in water. In decoction, propylene glycol is added followed by SLS. TEA is added drop by drop till the consistency is achieved.
 - a. Decoction + carbapol 940



- b. Water + preservatives + SLS
 - c.



Decoction + Propylene + SLS + TEA

Observations-

- Various parameters are evaluated for this formulations.
- Physical characteristics
- Colour, odour and consistency of all formulations were checked.

pH

pH of all this formulations was calibrated in digital pH meter at constant temperature. Skin is slightly acidic in nature and the pH ranges between 4.5 to 5.5 so all the formulations needs to match with this range of pH between 4 to 6.

Irritancy test

All the formulations were applied separately on the dorsal surface of left hand. These whole procedure was observed for about time interval of 1 to 2 hours.

Results

| Parameters | <i>Yavadi lepa</i> | <i>Yavadi gel</i> | <i>Yavadi face wash</i> |
|-------------|--------------------|-------------------|-------------------------|
| pH | 5 | 5.2 | 5 |
| Colour | Brownish yellow | Light yellow | Light yellow |
| Odour | Characteristic | Characteristic | Characteristic |
| Consistency | Paste like | Semisolid (gel) | Semisolid (gel base) |
| Irritancy | Non irritant | Non irritant | Non irritant |

The gel formulations are easily acceptable by the people. They are more convenient to use. Though the effect may vary because of less amount of active principles are involved in it. Gels are easily absorbed in the skin and may stay last longer than other forms like cream or ointment.

Discussion: Topical application includes cream and ointment which are not easily absorbable because it contains more amount of oil as a moisturizer. Which stays for long time on the skin and forms oily surface on skin as a barrier. Comparatively gels are easily absorbed in the skin as they contain more amount of water. They also increase the bioavailability of drugs. Gels can be made by using less chemicals and it can be useful as a base for other formulations also. Gels can be used for moisturizer and discoloration of skin etc. *Yavadi* face wash can be used as a cleanser. *Lepa*,

kadha, oil and powder can be converted into gel form to avoid greasiness and mess which also saves time and efforts of a patient. It can be easily involved in daily routine.

Conclusion-

All these formulations contain herbal ingredients and also the pH ranges between 4 to 6. So this all can be used topically.

Advantages-

- Absorbs easily.
- Easy to apply.
- Can be kept for longer time.
- Less time consuming.
- Non greasy.
- Regular use is easy.
- Easily acceptable by patients.

Disadvantages-

- Active ingredients are in less quantity.

Natural remedies are more acceptable as they are safer with fewer side effects than the synthetic ones. New dosage form have growing demand in the world market. Also the anti-microbial activity has proven for all this drugs. So this formulation can be used for further in-vitro study or clinically.

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