



Research Article

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PREPARATION OF VALUE ADDED FORMULATION OF VATAPALLAVA MALATHYADI LEPA

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ABSTRACT

Value addition is a relative proposition assuming magnanimous importance in today's dynamic world. In general adding value is the process of changing or transforming a product from its original state to a more valuable state. Here an effort was made to prepare a value added formulation by using extracts of herbal medicines mentioned in lepavidhi adhyaya of Sarngadhara samhita. Vatapallavamalathyadi lepa mentioned in Sarangadhara Samhita consists of six drugs having the property of vyangahara and tarunyapitakahara. Six drugs in the formulation had entirely different extractive values. The method used for extraction was maceration and solvent system used was 70% ethanol and 30% distilled water. Base used is the vanishing cream base. Value added Vatapallavamalathyadi lepa is very convenient and user friendly dosage form with slight pinkish color. This has a longer shelf life and is ready to use, compared to that of kalka.

Keywords: Value addition, extraction, Vatapallavamalathyadi lepa, maceration

INTRODUCTION

Ayurveda often called the science of life forms the traditional system of medicine in India. Ayurveda is an original holistic system of medicine whose principles of therapeutics are applicable universally. Ayurveda evolved over 5000 years ago, in the far reaches of the Himalayas, presumably from the deep wisdom of spiritually enlightened prophets of Rishis. We all live decades longer than our grandparents and will have better health in our later years. With this enhanced longevity, we all want to look as young as we feel. Aspiring to maintain eternal youth and to look good is not just superficial vanity. Our human nature dictates that we take care of ourselves and enhance our appearance.

Vatapallavamalathyadi lepa¹ mentioned in Sarangadhara samhita consists of six drugs viz vatapallava, malathy (jati patram), raktachandana, kushta, daruharidra and lodra. An effort is made to prepare vanishing cream which is value added formulation of Vatapallavamalathyadilepa. This is very convenient and user friendly dosage form. This has a longer shelf life and is ready to use, compared to that of kalka.

Value addition² is a relative proposition assuming magnanimous importance in today dynamic world. The enhancement of value of a product by the addition of any factor to it is known as value addition. In general adding value is the process of changing or transforming a product from its original state to a more valuable state. Value added refers to extra features of an item that go beyond the standard expectation and provide something more.

MATERIAL AND METHODS

Pharmaceutical study

The main aim is to prove the age old eternal principles of ayurveda on modern parameters. For that combining the strengths of the knowledge base of Ayurveda with the dramatic power of combinatorial sciences will help in the generation of new value added dosage forms which will be more stable and user friendly.

Pharmaceutical study comprises the preparation of value added formulation of kalka yoga used for topical application in Tarunya pitaka mentioned in Sarangadhara lepa vidhi adhyaya. Kalka needs to be prepared each time for application, where as the value added formulation can be prepared and preserved for long time and is easy for applying in the affected area.

Table 1: Ingredients of Vatapallavamalathyadi lepa

Drug	Botanical Name	Family
Vata	<i>Ficus bengalensis</i>	Moraceae
Jati	<i>Jasminum officinale</i> Linn	Oleaceae
Raktachandana	<i>Pterocarpus santalinus</i> Linn	Fabaceae
Kushta	<i>Saussurea lappa</i> C.B Clarke	Compositae
Daruharidra	<i>Cocinum fenestratum</i>	Menispermaceae
Lodra	<i>Symplocos racemosa</i> Roxb	Symplocaceae

Pharmacological Properties

Among the six drugs of the Vatadilepa, four drugs possess tikta rasa, three drugs having kasaya rasa. Vata pallava, raktachandana and lodra possess sita guna, Jati, kushta and daruharidra possess ushna guna. All the ingredients are with katu vipaka. Most of the drugs are with kapha pittahara property, vrana sodhana and varnaprasadana properties.

Table 2: Pharmacological properties of drugs used

Drug	Rasa	Guna	Veerya	Vipaka	Karma
Vata pallava ¹⁰	Kashaya	Ruksha Guru	Sita	Katu	Kapha pittahara Varnya Grahi
Jati ⁹	Tikta, kashaya	Laghu Mrudu Snigda	Ushna	Katu	Sirovirechana Chakshusya
Raktachandana ⁸	Tikta Madhura	Guru Ruksha	Sita	Katu	Pittahara Netraroga hara Vishagna Vrushya
Kushta ⁵	Katu Tiktha	Laghu	Ushna	Katu	Kaphavatajit Sukrala Rakta sodhana Varnya
Daruharidra ⁷	Tikta	Ruksha	Ushna	Katu	Stanya sodhana Dosa pachana
Lodra ⁶	Kashaya	Laghu	Sita	Katu	Kaphapittahara Grahi Chakshusya

Preparation of medicine

It consists of the following steps

1. Collection of raw materials
2. Preparation of choorna of each materials
3. Preparation of hydro alcoholic extract
4. Preparation of vanishing cream

Collection of raw material

Formulation consists of mainly six drugs. The drugs are vata pallava, malathi, rakta chandana, kushta, daru haridra, lodra. All the drugs were collected from genuine sources and the genuinty of the raw materials were tested from the Drug Standardization Unit, Government Ayurveda College, Trivandrum. The standards match with that of API standards.

Preparation of choorna of each drug

500 gram of each drugs were taken, then all are powdered separately. Characteristic of powder is coarse in nature.

Preparation of hydro alcoholic extract

The method of extraction selected was maceration technique. Extraction³ may be defined as the treatment of plant or animal tissues with solvent, where by the medicinally active constituents are dissolved and most of the inert matter remains undissolved. Maceration involved soaking plant materials (coarse or powdered) in a Stoppard container with a solvent and allowed to stand at room temperature for a period of minimum 3 days with frequent agitation. The process was intended to soften and break the plant's cell wall to release the soluble phytochemicals. After 3 days, the mixture is pressed or strained by filtration.

Here the solvent used was 100% pure ethanol and distilled water. Ratio of alcohol and water was 70: 30. Approximately 5 time's solvent was needed for complete immersion of powdered drug. The coarsely powdered drugs were kept in the solvent system for specified time and shake occasionally. Then the contents were squeezed and collected the clear filtrate by filtering through a filter paper and then dried the content by using a water bath. The extracts were stored in the refrigerator to avoid microbial contaminations.



Figure 1: Drugs kept for maceration



Figure 2: Filtrate



Figure 3: Evaporation of solvent using water bath



Figure 4: Final extract

Preparation of vanishing cream

Vanishing cream consists of stearic acid as oil phase and potassium hydroxide, glycerin, distilled water in aqueous phase. Both phases were kept over water bath. On attaining the same temperature (70°C), both phases were mixed together.

Temperature was monitored by using an industrial thermometer. If the temperature is not same, there is a chance for occurrence of grittiness to the cream. After that added the extract and mixed well. When the cream attained about 40 degree temperature added the preservatives in prescribed quantity. After cooling, the creams were stored in dispensing bottles.

Table 3: Ratio of drugs

Drugs	Percentage
Herbal medicine extract	12%
Distilled water	64%
Glycerin	10.5%
Stearic acid	24%
Potassium hydroxide	0.99%
Methyl paraben	0.2%
Propyl paraben	0.1%

Table 4: Formula of 100 gram cream

Ingredients	Amount taken
Distilled water	64 ml
Stearic acid	24 g
Glycerin	10.5 ml
Potassium hydroxide	0.99 g
Preservatives	Prescribed quantity ⁴

Figures of preparations of value added vanishing cream



Figure 5: Aqueous phase, oil phase and extract



Figure 6: Mixing of two phases



Figure 7: Final cream

RESULT AND DISCUSSION

The extractive values differ from one drug to another drug based on extractive procedures, solvent, nature of drugs etc. In the present study, from 500 gram of each drugs, got an entirely differed extractive values. Considering the nature of drugs, coarse

powder is more beneficial for extraction. If the powder is fine, absorption of solvent by the powder is more as compared to coarse resulting in less extractive values. In the present study, the solvent used is 100% pure ethanol and distilled water. Ratio of alcohol and water is 70: 30. Approximately 5 time's solvent was needed for complete immersion of powdered drug. On water bath

4-5 days needed for complete evaporation of solvent to get the final extract. Extract were kept at temperature below 35 degree F (1.6 degree C) to avoid bacterial contamination. During the time of preparation of cream, it is better to add the extracts after complete mixing of the phases. Before that the extracts of the drugs were heated over water bath below 50°C for proper mixing of extracts with the cream base. When the cream attains 40°C add the preservatives, to increase more shelf life. Here the base contains more water content, so there is a chance for microbial contamination. The prepared cream is having pinkish color due to the presence of raktachandana. And slight smell that of kushta.

Table 5: Values of extraction of ingredients

Drug	Amount taken	Extract
Kushta	500 g	35 g
Jati patram	500 g	67 g
Raktachandana	500 g	32 g
Peral mottu	500 g	20.4 g
Daruharidra	500 g	35 g
Lodra	500 g	40 g

Table 6: Organoleptic characters of ointment

Organoleptic characters	Observation
Smell	Characteristic smell of kushta and stearic acid
Appearance	Like ointment
Color	Reddish pink

Shelf life: 2 years.

CONCLUSION

Preparation of value added formulation by using herbal extracts give more opportunity and popularity for ayurvedic medicines. Here a value added vanishing cream is prepared by using extracts of six drugs which is mentioned in the lepavidhi adhyaya of Sarangadhara samhita. Maceration was the technique used for extraction and the solvent system used is 70% ethanol and 30% distilled water. This value added vatapallavamalathyadi lepa is having reddish pink colour and characteristic smell of kushta and stearic acid. Lepa posses more shelf life as compared to kalka form. By this way we can prepare more value added formulations, which is more user friendly and be ready to use. This gives more opportunity and popularity for ayurvedic medicines. Patients prefer this type of medicines due to easily application and portability. We can validate this by using a clinical study. Thus the value added formulations helps to form a new way for ayurveda.

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