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A PHARMACEUTICO – RESEARCH STUDY OF DURVADI TAIL AND DURVADIOINTMENT

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ABSTRACT

Ayurvedic medicine uses Durvadya Taila, a therapeutic oil, to treat skin illnesses called Kacchu, Vicharchika, and Pama, which are brought on by vitiated Pitta or Kapha doshas. One of the traditional herbal medicines used to treat a variety of illnesses is durva. Antimicrobial activity has been demonstrated *in vitro* for several herb and spice extracts and essential oils from thyme, oregano, parsley, cilantro, and cinnamon. Growth of several bacteria strains has been shown to be inhibited by various concentrations of these culinary herb and spice extractsin the culture medium. Antimicrobial phytochemicals fall into several categories: phenolics/polyphenols, terpenoids and essential oils, alkaloids, and lectins and polypeptides. Phenolic and polyphenols possess multiple antimicrobial mechanisms of action when compared to other phytochemical categories. In this antimicrobial study, Durvadi Taila whichis indicated in Darunaka as per Ayurveda Yoga Samgraha was taken as experimental drug. The main ingredients of Durvadi Taila are Durva panchanga swarasa, Nimbapatra swarasa, Yashtimadhu kalka, Narikela kshira and Narikela taila. The micro-organism used for the studyare Staphylococcus aureus, Pseudomonas aeruginosa and Microsporum canis. The Anti microbial study was done by using Agar well diffusion method using standard drug for different microbes.

KEYWORDS: *Durvadi, Micro, Drug, Taila, Oil.*

INTRODUCTION

The skin constitutes a major part of the body and serves as a dividing line between the individual and his environment. In the Ayurvedic classics, Bahir Parimarjana means, the medicine intended for external use only. For that purpose, in Ayurveda different forms of external applications are described for the convenience of treatment of different diseases. They are Lepa, Udvartana, Upanaha, Abhyanga, Malahara etc. Without defining creams under Panchavidha Kashaya Kalpana, we can correlate Cream preparation with Lepa or Malahara Kalpana. Creams are those emulsions, which are either oil in-water or water-in-oil type. Durvadya Taila is medicated oil used in Ayurveda for Kacchu, Vicharchika and Pama which comes under Kushtha Rogadhikar. Darunaka is the skin disease mainly effects the scalp of an individual. It is non inflammatory seborrheic dermatitis can be correlated with Darunaka in Ancient Ayurvedic texts where there is predominance of Vata and Kapha dosha. Darunaka was first time quoted by Acharya Videha which was compiled by Dalhana in his commentary Nibandha sangraha on Sushruta Samhita Nidanasthana 13th chapter. It mainly occurs in aldoscent and adulthood population and leads to symptoms like flakes, itching, dryness of scalp and hair fall. It affects 50% of world population. Due to high prevalence, frequent relapse and not effective modern therapy, present study undertaken to find effective and safe alternative to conventional topical antidandruff agent. In this antimicrobial study, Durvadi Taila which is indicated in Darunaka as per Ayurveda Yoga Samgraha was taken as experimental drug. The main ingredients of Durvadi Taila are Durva panchanga swarasa, Nimbapatra swarasa, Yashtimadhu kalka, Narikela kshira and Narikela taila. The micro-organism used for the study are Staphylococcus aureus, Pseudomonas aeruginosa and Microsporum canis. The Anti microbial study was done by using Agar well diffusion method using standard drug for different microbes.

DISCUSSION

a) **Volume of the end product:** Though 1000ml of Narikela Taila was used as a base; here thevolume of the end product of Durvadi Taila was 1300 ml, as Narikela kshira was one of the drava dravya, the fat globules from it may have led to increase in the end product.

b) **Organoleptic features:** In sneha kalpana the oil imbibes the qualities of the drugs addedto it during the paka. The product of the preparation of the taila was green in colour. The colour may be due to addition of Durva and Nimba swarasa as drava dravya. Slight Tikta Madhura rasa was appreciable in the sample which can be linked to presence of

Nimba & Yashtimadhu. Here the swarasa has imparted the colour to the oil, taste from the kalka and smell from the coconut milk added. These above features imparts characteristic features to thepreparation.

c) **Changes during the Paka and Status of kalka:** Colour of the taila gradually changes during the paka. As Swarasa was the drava dravya the total time required for Sneha paka was divided through 3 days for completion of the preparation. The kalka after filtration was soft like khova. The reason behind this may be the presence of coconut milk in the sample. The changes during the preparation of the taila indicates the different chemical changes occurring during the transferring of the properties from drava medium into the taila medium. The aqueous medium in the preparation of taila facilitates the imbibitions of the water-soluble extracts into the oil medium.

d) **Temperature:** The intensity of agni for preparation of taila was found to be maintained at 90-980 C by using mandagni. This is because the boiling point of water being 1000 C and coconut oil being 1710C. Here the temperature is maintained below it. By this the reaction between the water molecule and the fat molecule occurs in a consistent manner over a specific duration of time. This temperature facilitates easy evaporation of the water molecule remaining water- soluble extractives which is slowly imbibed into the oil medium by loosening the bondage in between the fat molecule. Hence mandagni could have been explained in books of Ayurveda for preparation of sneha kalpana. Also gunasanchaya in the sneha with longer duration take place as explained in books of Ayurveda. General Temperature range required for proper paka of Taila and Ghrita is 500C to 900C 3. The reason for the negative results of anti microbial study would be due to the fact that micro organism was procured which may be genetically resistant or virulent. Or it might be because there is lot of difference between Invitro and Invivo studies. Drugs may have different types of actions, some drug may have direct action in the organism some others may have rejuvenating and strengthening. Action on the body cells thus enabling them to fight any infections. we see that Ayurveda treatment concentrates on balancing the dosas of the body and we don’t see the concept of fighting bacterial infections in Ayurveda. The test drug is a clinically practiced remedy for scalp disorders and as a hair tonic, but there have been no claims in the sloka of its having any antimicrobial action. the success in the clinical practice of the test drug initiated the interest to find out whether it will have anti microbial action. Externally applied

applications are very important dosage forms in the field of pharmaceutics when a wound is considered. But, the daily routines of a man make it difficult for him to utilize his medicine properly. Topical applications are advantageous in cases of chronic conditions where patient can easily carry and use it frequently. Ayurveda, has described a lot of external applications for different disease conditions. But, when a topical application in the form of taila is carried around and applied, it is difficult to manage and there are chances of spilling which makes it uncomfortable. So it will be beneficial if it can be converted in to a suitable form of ointment where it will be patient friendly and ready to carry. Considering this, an attempt was made to modified Durvadi kera taila1 (A taila indicated in Vrana) to Durvadi ointment and evaluate its physicochemical parameters and compare the both. Vrana (Wound) is one of the most commonly faced problem ever since life was started on earth and vranaropana (Wound healing) is a constant challenge faced by physicians. In such situations it is very needful to develop ideal wound healing agents. Durvadi kera taila is an oil mentioned in Sahasrayoga indicated for vrana, which is made out of the drug Durva, Cynadon dactylon (L.), which has been proven for its haemostatic action,[2] and wound healing activity. Durvadi kera taila has also been proven as an effective wound healer. The ingredients of Durvadi kera taila are Durva swarasa and Durva kalka.

1. Procurement of raw drugs

1. Fresh sample of Durva was collected from the herbal garden of Amrita School of Ayurveda. Kera taila was purchased from the local market and Bee's wax and petroleum jelly were collected from authenticated sources.
2. Preparation of Durva Kalka and Durva swarasa Freshly collected Durva was washed thoroughly and a part of it was ground well in a stone mortar till it turned to a fine paste form, and then it was weighed to 100 g and this Durva kalka was kept aside. Then the remaining Durva was pounded and squeezed through a thin cloth. The same was continued till 1.6 litre of juice was obtained. The juice thus obtained was used as Durva swarasa.
3. Preparation of Durvadi kera taila by Snehapaka Vidhi Durvadi kera taila was prepared by following the general rule of tailapaka vidhi, using kalka, and swarasa and kera taila as the given ratio in classics. The observations found during the taila paka were noted and was proceeded with precaution.

Procedure

- 400 ml of Kera taila was taken in a vessel and was heated till phena shanti.
- To this 100 g of Durva kalka was added and mixed well.
- Thereafter, 1.6 litres of Durva swarasa was added to this mixture and low flame heat wasprovided.
- On attaining all the taila sidha lakshanas, the taila was taken away from fire and wasfiltered in a double layered cloth.
- Then it was stored in airtight container after completely cooling.
- Care was taken during the taila paka to avoid sticking by continuous stirring and gentleheat. 4.Preparation of Durvadi ointment
- 200 ml from the prepared Durvadi kera taila was taken to prepare Durvadi ointment

CONCLUSION

In Pharmaceutical Study as Narikela kshira was one of the drava dravya there was increase in the out put of oil due to the high fat content in it. Analytical study conducted on the study drug have helped to postulate preliminary standards. The sample proved to not have any antimicrobial action Invitro method on Staphylococcus aureus, Pseudomonas aeruginosa and Microsporum canis.

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