



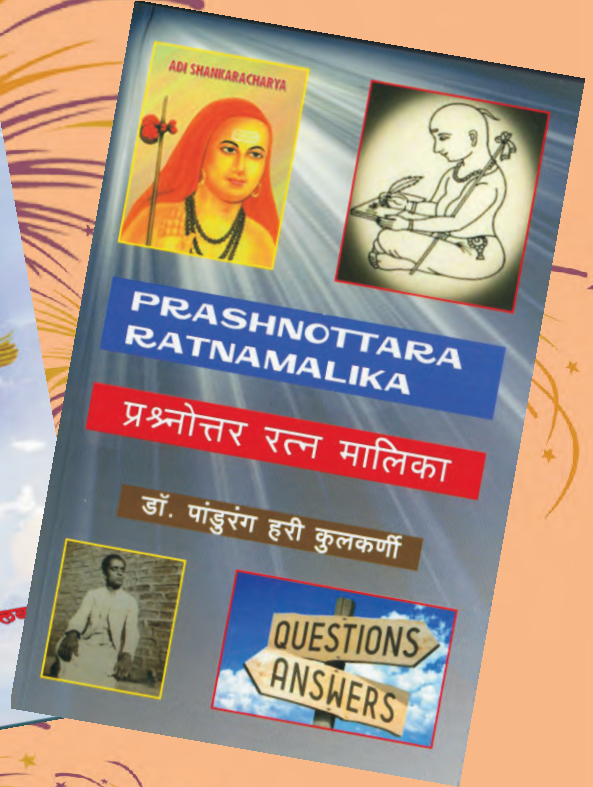
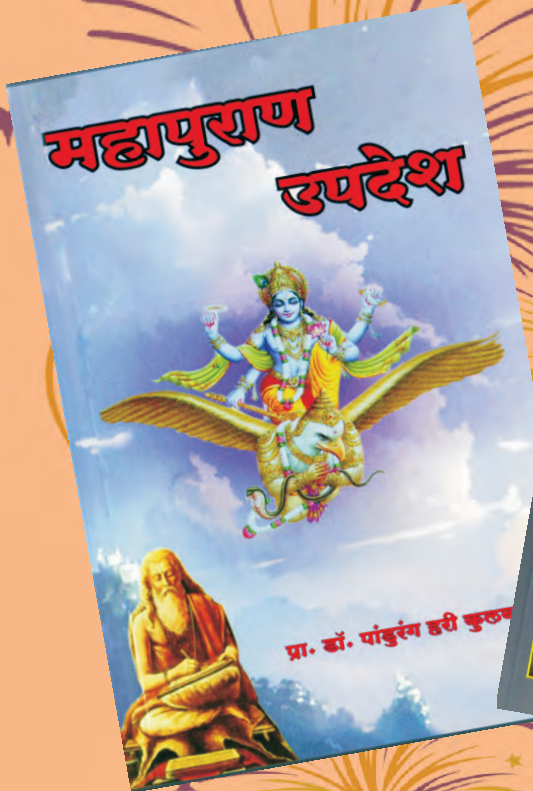
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Is Ayurveda A Science?



Lucia Tommasini

Opinion :

Is Ayurveda A Science

Lucia Tommasini

This is not a new question. This point has already been discussed with reference to the latest advances in science whose essence and findings prove nevertheless the validity of the old knowledge.

All discoveries are based on previous knowledge and as the international Physicist Bruno Pontecorvo stated, 'The more we know, the smallest element we discover we find that it has the same characteristics as the bigger one'.

We cannot say the same about viruses or bacteria. Do they change or is the terrain which makes them change?

All the evidence leads us to believe that all modifications of substances originate from the change of the terrain.

The change of the terrain is caused by many different elements. Life in its expression at the present time is definitely different from that in the past.

Different weather, different ways of approaching the seasons (heating in winter, air conditioning in summer), different food, different ways of propagating news , different working conditions , different perceptual capacities.... It is appropriate to say that we are living in a different world.

In 'The Legacy of Charaka' by M S Valiathan, it is said that 'the mind, self and the body are the primary pillars of the tripod which supports life. There are three secondary pillars: diet, sleep and control of senses....' Control of senses comprises sleep and diet. Control of senses includes also the respect of the four pillars: artha, dharta, kama, moksha. Unfortunately these pillars cannot be studied under the microscope while a virus or bacteria can. One should also ask about the meaning and significance of the discovery: do we carry out research on an existing terrain or do we create the terrain in order to carry out research?

The question is in some way ambiguous and we cannot find a fully comprehensive answer.

It is necessary to prove the validity of the medical aspect of ayurveda and in order to obtain this validity, the medicine is tested in scientific ways. This means generating a terrain in order to prove statistically the consequential effects.

Let us come back to the control of senses

In 'The English Charak Samhita' edited by Prof. Dr. P.H.Kulkarni we read about the Discipline of the Sense Organs, we discover that the mind has a wide spectrum of tasks.

Quantic physics tells us that energy fields change in accordance with our thought. We can then suppose that our way of thinking can change the terrain represented by our body and then generate the illness.

Together with the scientific researches in the lab, could we begin to work with the first lab in the history of humanity which is formed purely of the mind? A mind lab?

Mind and emotions. Each dosha has a wide spectrum of constructive and destructive emotions to work with. Every subdosha with the pertinent organic implications constitute a guide to understanding the emotions implied.

In the past emotions had a different profile, a different expression. Life, wellbeing and illnesses are certainly different from what was understood before. It is necessary to adjust our understanding on the basis of the substantial evidence of what signifies vata, pitta, kapha. Symbols constitute a foundation of knowledge. What we consider real, is only so in our perspective, or our perception of real. Real cannot be taken as absolute. Nothing can be considered absolute and this is valid for medical care also.

Vata, Pitta and Kapha can be considered real, based on 'scientific' evidence, energy essence, symbolic expressions.....

Nowadays it is very frequent to encounter autoimmune illnesses. The causes of this unusual physical condition are still unknown. The activity of the immune system is suppressed and the ill person survives often in miserable conditions.

Ayurveda states in several points the importance of mind activity, the mind being the sixth sense organ.

One of my teachers Prof. Dr Ashwin Barot of Jamnagar, once asked me 'what is life....Life is a length of time which goes from conception to death'. What we do in that length of time it not life but action. No condition of our body can escape the effect of action and any action can escape the effect of mind...

Let me express my thoughts about a possible analysis of an illness.

Let us take diabetes at random.

We have been told (tradition) that diabetes as has a karmic profile.

Actually the law of karma is clearly explained by Quantic Physics so we can say that karma has been 'scientifically' proved.

In the case of diabetes it is very possible that the three doshas will be alternatively unbalanced.

The study of the individual constitution is a basic point and will supply a guideline regarding the possible and potential evolution of the illness.

The subdoshas will be immediately implicated in relation to the doshic constitution.

There are other factors referring to the involvement of subdoshas & these factors can be found in previous illnesses or emotional conditions, traumatic accident related to the specific organ.

Complications have to be studied on the basis of Ayurvedic constitution, physical and emotional.

The emotional aspect (Antakharana?, Chit?, Ichha?, Ahankarara?) is extremely important. The hereditary factors are always correlated to the emotional heritage. We cannot change the DNA but we can change the expression of our emotions. We shall understand the origin of our emotions. Medication helps the body to a certain extent, meditation helps the consciousness and the mind in order to explain the origin of the illness and cure it.

Science speaks of an effect generated in the lab. It has certainly a value which need to be analyzed. However, Scientific data cannot be considered as absolute. We shall remember that in the life of this planet we live a bipolarity with the purpose of reaching the third point. The point of connection, of union, of fusion. In our everyday life or activity, we have two positions: one refers to human potential and the other to financial potential. The third point is the knowledge of both and then the choice. We can feel happy and say that the cause is the terrain, including DNA, at the same time most evidence demonstrates how the mind and emotions are the origin of our state of health and therefore affect the quality of health. Health is balance, illness is imbalance. The prakruti is a means to understand the process. To accept the individual prakruti is an act of respect for what we are called to do in this life. We have to work in harmony with it, overcoming the difficulties that the prakruti generates to our understanding both physically and mentally

It is possible that this procedure was so obvious to our ancestors that they were able to resolve immediately any incorrect understanding of the individual constitution.

It is not wrong to carry out research in order to heal the illness. At the same time we must be aware that the illness is a message and when we heal it without understanding the cause, it will always return, creating the chronicity. A real healing process demands knowledge and understanding of the reason for the illness. A famous German doctor, Friedric Hoffman, in 1860 said that 'illness is a message of the soul in order to help the body to understand its mistakes'. It is difficult to believe that a bone fracture caused by an accident can be considered psychosomatically an expression of mind and sense problem. In my 40 years of experience I can say, that it is precisely what it is.

Prakruti gives the structure of the body and we can say that all prakruti are the base of the individual balance. In the study of the prakruti we also study the mind aspect. Keeping the mind balanced is not easy if we do not nourish it appropriately. The nourishment is based on the four pillars and it involves the understanding of the four pillars.

The appropriate medication to reach this understanding has its basis in pranayama, dharana, dhyana and samady.

Official western science has proved the importance and the action of breathing on physical and mental levels.

Our ancestors were aware of this and we have disregarded this evidence which conveys the first and most important value of life: the understanding of Who I Am.

Concept of Samshrishta Dosha - An Overview



Sameer Joshi

Review :

Concept of Samsrisha Dosha – An Overview

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Abstract :

As per Sir M. Monier Williams - the meanings of the term Samsrishta are- Associated or connected together, Mingled or Mixed with, Combination of two Dravyas which produce a disease Vagbhatacharya explains it as the combination of two Doshas as Vriddhi and Kshaya is termed as Samsarga and all three Doshas together is termed as Sannipata. AcharyaCharaka explains Samsargaas, AnubandhyaVyadhi is Primary Disease which manifests its own symptoms independently. This gruesome condition is caused by the factors specific to the manifestation of the disease. Such diseases are cured by the therapies prescribed for that particular disease. When such diseases are caused by all the three Doshas together, the condition is termed as "Sannipata" and if only two of the Doshas together cause a disease it is "Samsarga".

Keywords : DvulbanaSannipata, SamsrishtaDoshaAvastha, Types Of Samsrishta

Introduction :

The aim of treatment in Ayurveda is to achieve balance in the state of the constituents of the body viz. Doshas, Dhatus and Malas. A Physician who instigates the treatment without proper diagnosis of the disease can attain the desired result only by 'CHANCE' and can be labelled as "Yadriccha". (1) Hence the Physician should have complete knowledge about the disease i.e. A Physician should get acquainted with the 'KARYAYONI' i.e. Dhatuvaishmya. (2)

In a disease condition, Dosha circulates all over the body in different manner or ways like

- 1) Prakrut, Vikrut
- 2) Anubandhya, Anubandha.

And also they propagate in permutation and combination form like

- 1) Two doshas (Dvidoshaj) together.
- 2) All three Doshas together. (3)

Thus, it is clear from above reference that the behaviour of Doshas plays a vital role in the pathogenesis of the disease. The manner of vitiation of the doshas and the combinations with other doshas and dushyas has to be understood to achieve successful treatment. This brings us to the study of Samsristadoshas.

Meaning of the term 'SAMSRISHTA'

As per Sir M. Monier Williams - the meanings of the term Samsrishta are-

- Associated or connected together
- Mingled or Mixed with
- Combination of two Dravyas which produce a disease

Vagbhatacharya explains it as the combination of two Doshas as Vriddhi and Kshaya is termed as Samsarga and all three Doshas together is termed as Sannipata. (4)

Acharya Charaka explains Samsarga as, Anubandhya Vyadhi is Primary Disease which manifests its own symptoms independently. This gruesome condition is caused by the factors specific to the manifestation of the disease. Such diseases are cured by the therapies prescribed for that particular disease. When such diseases are caused by all the three Doshas together, the condition is termed as "Sannipata" and if only two of the Doshas together cause a disease it is "Samsarga". (5)

Sushrutacharya described such condition as in combination, the subsidiary dosha aggravate with three, two or single property follows the dosha aggravated with all the properties. Acharya Dalhana in his commentary explains it as, In combination of two or more doshas their relative strength in terms of chief and subsidiary doshas should be considered in treatment according to the fractional presence of their properties. The Dosha aggravated with three or less properties is Apradhan or Anubandha while that aggravated with all the properties is Pradhana or Anubandhya. (6)

Vagbhatacharya explains it as Diseases are to two types Svatantra (Primary or Independent) Paratantra (Secondary or Dependent). These Svatantra diseases have their own specific cause, comforting methods (Treatment) & clearly manifesting features. Whereas the Paratantra (associated) diseases are opposite to these. (7)

EXPLORATION OF THE TERM SAB SRISHTA

The term Samsrishta is used in different context in different Adhyayas with the combination of

- Two Rasa
- One Dhatu and One Mala
- One Dosha & One Dhatu
- Two Doshas

1) Two Rasas - Carakacharya have mentioned Rasa Samsrishta in AtreyabhadrakapiyaAdhyaya of Sutrasthana.

(8)

2) One Dhatu and One Mala -

(9)

3) One Dosha and One Dhatu - In AshtauninditiyaAdhyayaDosha&DhatuSamsrishta is mentioned.

(10)

But Sushrutaexplored it while explaining the 'Shatkriyakala'. He explains it as, the excessively vitiated and increased Doshas spread all over the body independently or in various combinations of

- two

- all

- or with Rakta as Vata-Pitta, Vata-Kapha, Pitta-Kapha, Vata-Rakta, Pitta-Rakta, Kapha-Rakta.

(11)

TYPES OF SAMSARGA

The number of different Permutation and combinations of doshas are explained in Kiyanta-ShirasiyaAdhyaya of Charak-Samhita.It elucidates that, the simultaneous aggregation of two Doshas (Samsarga) is of nine types. **(12)**

i) - Aggravation of one Dosha is excess - It is of six types.

1) Vata aggravated & Pitta more aggravated

2) Vata aggravated &Kapha more aggravated

3) Pitta aggravated &Vata more aggravated

4) Pitta aggravated &Kapha more aggravated

5) Kapha aggravated &Vata more aggravated

6) Kapha aggravated & Pitta more aggravated

ii) & Aggravation of Two Doshas in Same Degree- It is of three types

1) Vata and Pitta

2) Pitta and Kapha

3) Vata & Kapha

“DVULBANA SANNIPATA” is also to be included as a part of the study of samsrihtadosha. DvulbanaSannipata is a type of Sannipata& not a SamsrishtaAvastha. These conditions are very similar to that of SamsrishtaDoshaAvastha because in DvulbanaSannipataAvastha, Two doshas are predominant &Lakshanas manifested are prominent to those doshas which are Predominant. The priority should be given for those doshas which are prominent.

Also, the line of treatment or the treatment advised is for those Doshas which are dominant.AcharyaCharak explains it as two doshas aggravated in excess and the remaining one aggravated in minimal level.(13)

- 1) Vata & Pitta aggravated in excess &Kapha just aggravated.
- 2) Pitta & Kapha aggravated in excess &Vata just aggravated.
- 3) Kapha&Vata aggravated in excess & Pitta just aggravated.

BEHAVIOUR OF DOSHAS IN SAMSRISHTAAVASTHA

In AshatangHridayaVagbhatacharya quotes, all the dravyas existing in this Universe possess more than one Rasa i.e. No Dravya in the Universe is one Rasatmaka, as each and everything from the Universe is made up of Panchamahabhutas; and in the same manner, diseases are also not produced by any one dosha itself. (14)

Charakacharyasays that, the multitude action of Rasas&Doshas is responsible for manifestation of different attributes of drugs & diseases. So in order to understand these results one has to think about the specific attributes of the Rasas and Doshas individually or combinely. (15)But there are some exclusions for this statement, and it can be understood in better way with the help of two conditions explained below –

Due to the variation in the curative effects of drugs, pretension of one property of drug with another and the method of their preparation which leads to perversion in combination, it is not possible to determine the features of substance having multiple tastes or exhibition or manifestation of a disease caused by many doshas, simply by taking into account the attributes (features) of individual Rasa or Dosha. (16)

Chakrapani articulates that, there are two types of combination of Rasas and Doshas.

- a) Similar to the nature of the constituent factor
- b) Dissimilar to the nature of constituent factor

When there is combination without impending (inhibition) the features (attributes) of the constituent factors in the resultant manifestation, then it is termed as “Prakrutisamasamavaya” and when there is inhibition of the attributes of any of the factors constituting the drug or the disease, there this is known as “Vikrutivishamasamavaya”. (17)

Samsrishta Doshas-

- 1) Prakritisamasamavaya
- 2) Vikrutivishamasamavaya

The examples for this types are-

e.g –Prakritisamasamavaya

It means that, the symptoms of fever due to simultaneous vitiation of all the doshas, combine in different modes to constitute the symptoms of fever due to the simultaneous vitiation of two of the doshas or of all the three doshas. e.g. of Vikrutivishamasamavaya

While explaining the Lakshanas of Vata-KaphajaJvara – Acharya Gangadhara & Madhukoshkara explains – Svedapravartan- as excessive sweating, and this is due to Most of Vikrutivishamasamavaya.

The SamsrishtaAvasthaare manifested asPrakritisamasamavaya and as a result of that Dvandvaja types are not mentioned in all the diseases.

Conclusion-

- 1) Study & clarification of SamsrishtaDoshaAvastha helps in achieving perfection in-
 - a. Diagnosis
 - b. Treatment
 - c. Prognosis of the diseases.
- 2) In combination of Two Doshas the dominant Dosha should be treated without antagonizing the other Dosha.

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**Pharmaceutico-Analytical Study of
"Maharasa Pottali" with special reference
to Rasaprakash Sudhakar**



Bharati Kamat

**Experiment : Pharmaceutico-Analytical Study of
"Maharasa Pottali" with special reference
to Rasaprakash Sudhakar**



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Abstract :

Rasashastra & Bhaishajya Kalpana deals with the medicaments prepared mostly from herbs, animals, minerals, and metals. Permutations and combinations of different herbs and minerals is done through various pharmaceutical procedures, so that they become more and more therapeutically compatible with bodily elements. The panchavidha kashaya kalpanas like swarasa, kalka, kwatha, hima and phanta are the basic doctrines of Bhaishajya Kalpana, mainly for herbs; whereas Rasashastra predominantly deals with Herbo-Mineral-Metallic preparations for therapeutic use.

Rasashastra (science of alchemy) mainly deals with Parada (Mercury); which is the heart of Rasashastra. In fact, the whole science is under the influence of physical and chemical properties of Parada. In Rasashastra 'Rasa' means 'Parada',

The textual definition indicates moorchana of Parada as a process by which the mercurial product is made in such a way, that it certainly cures the disease for which it is administered. Majority of rasoushadhi are the outcome of rasa moorchana. They are classified in various forms. For example, Saagni and Niraagni moorchana, on the basis of utilisation of heat during process. Sagandha and Nirgandha on basis of the presence or absence of sulphur as an ingredient, etc. According to the process involved and shape of the product rasa oushadhis are also classified as Khalviya, Parpati, Pottali, Kupipakva, etc.

Key Words- Herbo-Mineral-Metallic, Moorchana, Pottali

Total No. of Ref.- 06

INTRODUCTION :

As the name itself defines; "Ayurveda" is the most ancient science of life. All the fundamentals of Ayurveda are scientifically proven again and again over the period of time. Ayurveda deals not only with the study of diseases and its cure; but also with its prevention. Not limiting to prevention and cure; it also elaborates the minute details of treating vaidya (doctor), patient being treated, the nurse and medicine; which is essential for optimum successful treatment.

भिषग्द्रव्याण्युपस्थाता रोगी पादचतुष्टयम् ।

गुणवत् कारणं ज्ञेयं विकारव्युपशान्तये ॥

(च. सू. ९/३)

Four pillars for treatment mentioned in Ayurveda Bhishak(Doctor), Dravya (medicine), Upasthata (helper), Rogi (Patient)

As mentioned above medicine is very important part of treatment. During treatment a drug can be used as a single drug, or in combination or else in different types of formulations. Rasashastra & Bhaishajya Kalpana deals with the medicaments prepared mostly from herbs, animals, minerals, and metals. Permutations and combinations of different herbs and minerals is done through various pharmaceutical procedures, so that they become more and more therapeutically compatible with bodily elements. The panchavidha kashaya kalpanas like swarasa, kalka, kwatha, hima and phanta are the basic doctrines of Bhaishajya Kalpana, mainly for herbs; whereas Rasashastra predominantly deals with Herbo-Mineral-Metallic preparations for therapeutic use.

Rasashastra (science of alchemy) mainly deals with Parada(Mercury); which is the heart of Rasashastra. Infact, the whole science is under the influence of physical and chemical properties of Parada. In Rasashastra 'Rasa' means 'Parada', so obviously the scientific study of Parada does mean "Rasashastra". Parada yogas are unique and highly evolved pharmaceutical preparations which are boon to the Ayurvedic Medical field through its wide range in therapeutics. Parada and Gandhaka are the chief materials of Rasashastra with a wide range of therapeutics and high efficacy

Internal administration of mercury is mentioned in the texts of rasasashtra. It is mainly in three forms;

- 1) Moorchitha
- 2) Baddha
- 3) Mrita

The textual definition indicates moorchana of Parada as a process by which the mercurial product is made in such a way, that it certainly cures the disease for which it is administered. Majority of rasoushadhi are the outcome of rasa moorchana. They are classified in various forms. For example, Saagni and Niraagni moorchana, on the basis of utilisation of heat during process. Sagandha and Nirgandha on basis of the presence or absence of sulphur as an ingredient, etc. According to the process involved and shape of the product rasa oushadhis are also classified as Khalviya, Parpati, Pottali, Kupipakva, etc.

NEED FOR STUDY :

Pottali literally means consided, minimized or compact. Pottali kalpanas have their unique place in both ayurvedic pharmaceuticals and therapeutics owing to their following positive aspects :

1. Minimal dose & Easy administration: Pottali is rubbed over scratch stone and very small dose as low as ½ to 2 Ratti is administered.
2. More palatability: Pottalis are tasteless so patient compliance is good.
3. Long shelf life: Pottalis are durable due to its unique procedure of preparation.
4. Compactness: Due to its small peculiar size and shape Pottali is easy to handle and dispense.
5. Life saving Remedy: Due to its easy administration and fast absorption even from tongue, Pottali can be used to tackle acute conditions and as a life saving remedy.
6. Thus Pottali kalpanas can be used to surpass all the limitations Ayurveda is encountering now a days while handling critical conditions and prove to be far more potent than injections in modern medicine; provided proper advanced research is done to revive this Pottali kalpana.

About 83 Pottalis are mentioned in the Rasa texts. Unfortunately the majority of them are out of use in present clinical practice. Scholars are of the opinion that real Pottali is the one prepared by the process of Vidruta Gandhaka paka. However in few of the texts, medicines prepared by heating the drugs inside a closed Samputa by subjecting to Puta are also referred as Pottali, as in the present case of "Maharasa Pottali" and also other Pottalis like Lokanatha Pottali, Vaishwanar Pottali, etc.

In case of "Maharasa Pottali, the main ingredients are Parada (Mercury-Hg), Gandhaka (Sulphur-S), nagwalli & dhattur patra swarasa for bhavana. The preliminary step is the preparation of Kajjali with shuddha Parada & shuddha Gandhaka. Kajjali is the basic compound in many of the rasa preparations. It has both 'yogavahi' and catalytic properties. Later Parpati is prepared from Kajjali as stated in classics. Parpati is better known for its activity on Grahani, where it acts by reducing hyperperistaltic movement of intestines. Finally Maharasa Pottali is prepared by subjecting Parpati(Nagavalli & Dhattur patra swarasa bhavit) to Puta.

Maharasa Pottali is used as Balakara and for Sukha Siddhi, that means it is used as Rasayana. Thus indication of Maharasa Pottali is totally different from Kajjali and Parpati, though all three preparations have same contents, but subjected to different pharmaceutical procedures. This indicates that each preparation has different characteristics, owing to its difference in method of preparation or different sanskaras. This study is intended to find out the exact physico-chemical changes in Kajjali, Parpati and Maharasa Pottali. Having said that, analysis till Kajjali and Parpati is available but Maharasa Pottali is not available. So it is a need to find out the exact size and shape of crystals of Maharasa Pottali after bhavana with nagvalli and dhattur and puta. Because its scientifically proved that as per size and shape of crystals of a drug, the Target cells in the body also change and this study will help us to understand whether this happens in case of Maharasa Pottali.

Considering the need of reviving the pottali kalpana and therapeutic importance of Maharasa Pottali, it was decided to carry out a pharmaceutico analytical study of Maharasa Pottali, which may help to add values to Ayurvedic pharmaceuticals.

REVIEW OF LITERATURE :

Literature of "Maharasa Pottali" from various classical, texts, journals, internet, manuals, etc will be reviewed as and when required.

सशुकपिच्छसमोऽपिहि पारदो भवति खल्वतेन च कुट्टितः ।
 द्रुढतरामुपकल्पय पर्पटिं वसनबद्धकृतामपि पोट्टलीम् ॥
 उपरि नगरसेन विलेपितां रविकरेण सदा परिशोषिताम् ।
 कनकपत्ररसेन च सप्तधाऽप्यवनिर्गततले विनिवेशय ॥
 अवनिर्गर्तमरत्रिकमायतं द्विदशमागडुलमेव सुनिम्नकम् ।
 सिकतया परिपुर्य तदर्धकं तदनु तत्र निवेशय पोटलिम् ॥
 उपरि बलुकया परिपूर्यतच्छगणकैश्च पुटं परिदीयताम् ।
 द्विदशयाममथाग्निमहो कुरु भवति तेन महारसपोटलि ॥
 इति मया कथिता रसपोटलि बलकरा सुकरा सुखसिद्धिदा ॥

Recent advances in the context of present study will be reviewed through resources like published research papers, internet etc.

PREVIOUS WORK DONE -

1. A comparative analytical study between Kajjali, Parpati, Rasa Pottali and Rasasindura was done in 2009 at Karnataka University.
2. Pottali Rasa nirmana evam intestinal amoebiasis par adhyayan in 1990 at Patiala University by Dr. Gulati M.
3. Pottali vigyaniam in 1958 at Jamnagar University by Dr. Jain M.C.

HYPOTHESIS

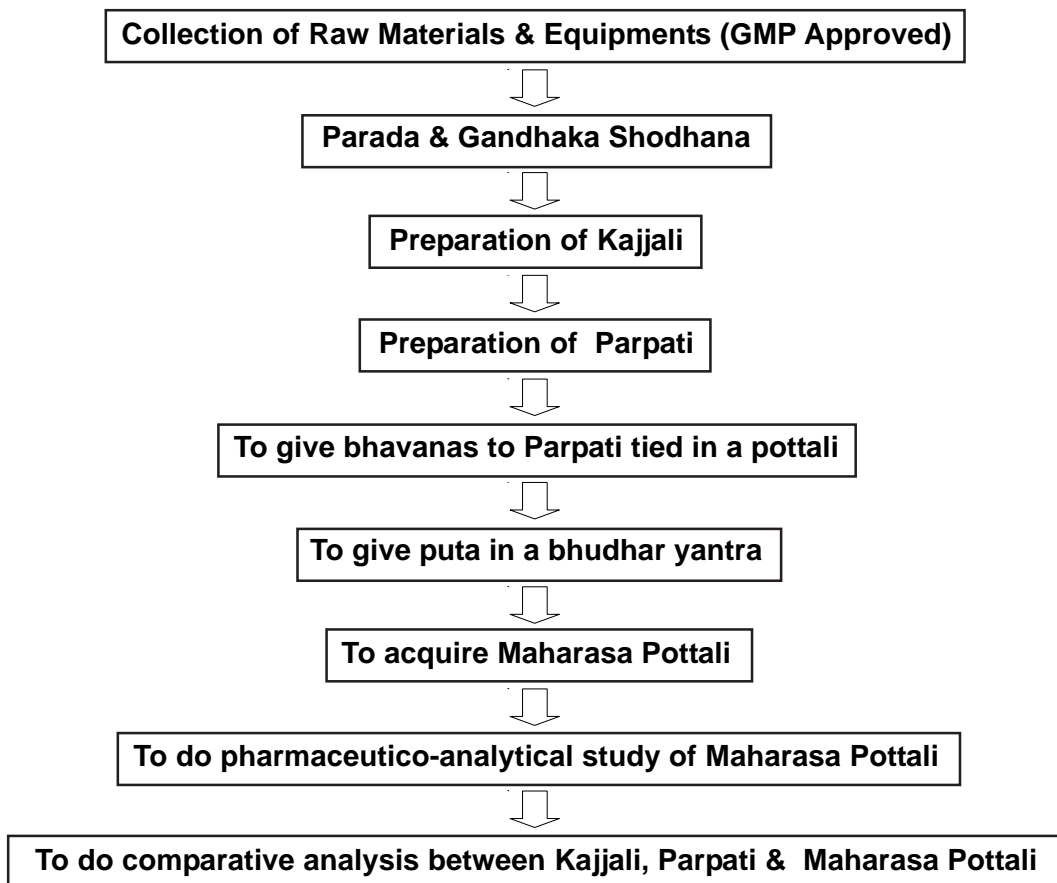
There is difference between analytical values of Kajjali, Parpati and Maharasa Pottali. Also there is significant change in size and shape of particles of Maharasa Pottali.

AIMS AND OBJECTIVES**AIM :**

To do pharmaceutico-analytical study of Maharasa Pottali

OBJECTIVES :

1. To do Shodhana of Parada and Gandhaka.
2. To prepare Kajjali & to prepare Rasa Parpati followed by preparation of Maharasa Pottali.
3. To compare the Analytical properties of Kajjali, Rasa Parpati & Maharasa Pottali.
4. To do pharmaceutico-analytical study of Maharasa Pottali.

Collection of Raw Materials & Equipments**(GMP Approved)****STUDY DESIGN :****MATERIALS AND METHODS****MATERIALS:**

Raw materials will be procured from GMP approved pharmacy.

Drug name	Latin name	Part use	Ratio
Parada	Hydrargyrum	-	1 part
Gandhaka	Sulphurium	-	1 part
Nagarvela	Nerium indicum.	Leaf	q.s.
Dhattur	Calotropis procera	Leaf	q.s.

EQUIPMENTS :

- 1) Gas burner.
- 2) LPG gas cylinder.
- 3) Utensils (stainless steel vessels).
- 4) Lighter.
- 5) Measuring jar.
- 6) Weighing machine.
- 7) Enamel tray.
- 8) Bhudhara Yantra
- 9) Mortar and pastel
- 10) Grinder and Mixer
- 11) Muslin cloth
- 12) Cow dung
- 13) Spoons.
- 14) Ladel

METHODS :**Pharmaceutical Study :**

- Raw materials will be collected from the genuine sources like Pharmacies, Chemical stores, Market, etc.
- Maharasa Pottali will be prepared at Rasashastra & Bhaishajya Kalpana Department of Loknete Rajaram Bapu Patil Ayurvedic medical College, Hospital, Post Graduate Institute & Research Centre, Islampur.
- Parada Shodhana will be done as per Rasatarangini by the following method; Parada will be triturated with equal parts of lime powder for three days and filter it through double layered cloth. Later Parada will be triturated with equal parts of Garlic and $\frac{1}{2}$ part of Lavana, till the mixture turns black in colour. This mixture will be washed with cold water till shuddha Parada is acquired.
- Gandhaka Shodhana will be done as per Rasaratna Samuchhay. Gandhak will be liquefied by heating it in a vessel and then pouring it in Bhringaraj swarasa, then again liquefying it and pouring it in Bhringaraj swarasa; this procedure will be repeated seven times and shuddha Gandhaka will be acquired.
- Kajjali will be prepared by triturating equal parts of Parada and Gandhaka.
- Rasa Parpati will be prepared by Samaguna Kajjali by heating with Go ghrita. This melted Kajjali will be made into a Parpati by pouring it on a kadali patra placed over a cow dung and again pressing it with kadali patra topped with cow dung.
- Rasa Pottali will be prepared by the following method; The Parpati prepared from Samaguna Kajjali will be powdered, triturated with Tambula patra swarasa, made into a bolus, then tied in a thick cloth and dried. Dattura patra swarasa Vilepana will be done and subjected to Bhudhara puta.

ANALYTICAL STUDY**1) Organoleptic Tests :**

- i) Rupa Pariksha: Colour
- ii) Rasa Pariksha: Taste
- iii) Gandha Pariksha: Odour
- iv) Sparsha Pariksha: Texture

2) Physicochemical Tests :

- Physico chemical characters like ash value including total ash, acid insoluble ash, alcohol soluble ash and sulphated ash.
- p^H value.
- Qualitative identification of elements like calcium, sulphur, mercury.
- Instrumental methods of analysis for identification of trace elements by using methods like EDAX, AAS, and ICP-AES
- Particle size analysis by using the methods like DLS (Dynamic Light Scattering).
- Surface topography & Particle identification by the method like SEM, TEM.

Structural elucidation & crystallite phase identification by X-ray diffraction.

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**Physico-Chemical & Analytical Study of Gudadi
Gutika with special referance to Its S. O. P. and
Stability**

Experiment : **Physico-Chemical & Analytical Study of
Gudadi Gutika with special reference to
Its S. O. P. and Stability**



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Abstract :

Gudadi gutica is famous ayurvedic formulation which is given in the ayurvedic formulary and useful in piles and skin diseases. Gudadi gutika contain Tila, Triphala, Trikatu, Bhallataka, vayvidang ,chitrakmul, and guda .All the ingredients are ushna tikshna in nature, anulomak, pramathi, deepan, pachan & all these properties are useful in treating arsha.

The main aim of this study is to do analysis of gudadi gutika prepared by different methods,also to evaluate it's shelf life .it includes hardness of vati , thickness, friability and rate of .disintegration.if it differs from gutika to granules and vati ,it will also have variable dosage..prior to present study , no work has been done on gudadi gutika, also the ingredients of this drug are easily available, are cheaper and can be easily prepared. Thus a very potent drug on arsha can be made available.

Key Words- Gudadi gutica, Haemorrhoids(arsh)

Total No. Of Ref. - 08

1.1) Introduction :

Ayurveda is an ancient Indian medical science reminded by Lord Brahma. from stone age man lived in harmony with other animals and he has learnt everything from nature.he consumed the plant in their natural form and unknowingly Benefited from the medicinal properties of herbal drugs. gradually he tried to make those medicinal plants 'more palatable' and 'more pleasing'to his sense organs by changing their forms(to swarasa , kalka ,vati) and this act of changing the forms of natural medicinal plants becomes the beginning of bhaishyajya kalpana.

The science explains various methods of processing a drug in Order to make the drug more palatable, rich in potency, pleasing with good odor,colour etc and long lasting or improve the shelf life of the preparation.

In modern day to day life of urgency and emergency patients neglects proper diet and lifestyle habits.it ends in reducing digestive fire (agni) or making it Abnormal(mandagni) due to.mandagni patient is not able to digest food material at proper speed and time. It

results in accumulation or stagnation of half digested food material(Aam)in the form of stool inside or throwing it before time in watery or semisolid form which disturbs doshas at anorectal region.

Haemorrhoids(arsh) are one of the most common ailment of the rectum affecting as much as half the population by the age of 50.it is swollen , inflamed Veins and capillaries around the rectum. They are classified as either internal or external piles.Ayurveda plays a important role in management of arsha,it has been proved by scientific studies that botanicals improve microcirculation,capillary flow and strengthen the surrounding connective tissue of anus and lower rectum.

1.2) NEED OF STUDY :

The flora and fauna of india is popular throughout the world. The Indian herbal formulation contains compounds which have proposed therapeutic activity but,have no uniform process of manufacturing and no s.o.p.'s available for production, analysis, validation and lac of analytical procedures.

The present investigation was aimed to develop standard operating procedure for the physico-chemical analysis of gudadi gutika. Medicine prepared in the form of tablet or pills are known as vati.these are made of one or more drug of plant , animal or mineral origin.

Gudadi gutika is famous ayurvedic formulation which is given in the ayurvedic formulary and useful in piles and skin diseases. Gudadi gutika contain Tila, Triphala, Trikatu, Bhallataka, vayvidang ,chitrakmul, and guda .All the ingredients are ushna tikshna in nature , anulomak,pramathi,deepan, pachan & all these properties are useful in treating arsha.

The main aim of this study is to do analysis of gudadi gutika prepared by different methods,also to evaluate it's shelf life .it includes hardness of vati , thickness, friability and rate of .disintegration.if it differs from gutika to granules and vati ,it will also have variable dosage..prior to present study , no work has been done on gudadi gutika, also the ingredients of this drug are easily available, are cheaper and can be easily prepared. Thus a very potent drug on arsha can be made available.

2) PREVIOUS WORK DONE :

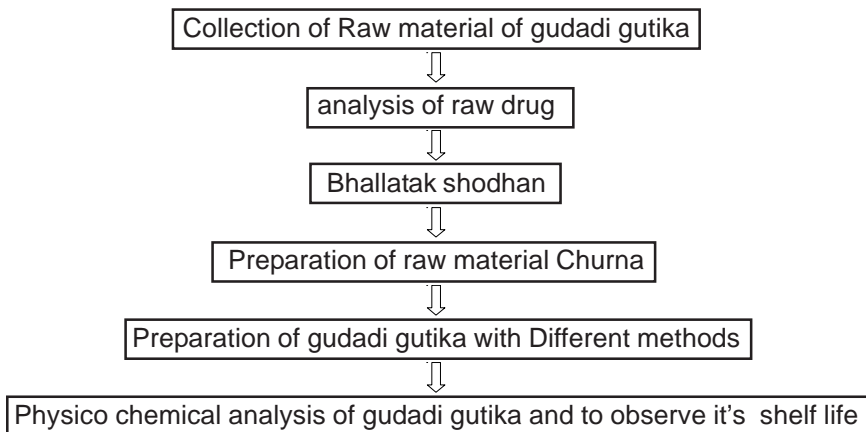
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3) AIMS & OBJECTIVES :

3.1 AIM : preparation of gudadi gutika with different method. And to develop standard operating procedure for gudadi gutika. & to evaluate it's shelf life.

3.2 OBJECTIVES :

1. A literature study of the ingredients of gudadi gutika
2. Preparation of gudadi gutika by different methods and to develop s.o.p.
3. A observational study of it's stability(shelf life).

4) STUDY DESIGN :**5) Materials & Methodology :****5.1 MATERIAL :**

1. Herbs Used in the preparation of gudadi gutika

Sr no	Name of drug	Botanical name	Part used	quantity
A	Tila	Sesamum indicum linn	beej	1Part
B	Amalaki	Emblica officinalis geartn	phala	1 part
C	Haritaki	Terminalia chebula retz	phala	1Part
D	Bibhitak	Terminalia belerica roxb	phala	1Part
E	Sunthi	Zingiber officinale roscoe	khand	1Part
F	Marich	Pipper nigrum linn	phala	1part
G	Pippali	Piper longum linn	phala	1 part
H	Bhallatak	Semicarpus anacardium linn	phala	1Part
E	chitrakmula	Plumbago zeylanica	Root	1Part
F	vayvidang	Emblia ribes	beej	1Part
g	guda	jaggery		20 part

5.2 EQUIPMENT :**Instruments used for the preparation of gudadi gutika**

1. Heating device- gas burner
2. SS vessel
3. Stainless steel ladle
4. Stainless steel strainer
5. Measuring cylinder
6. glass container
7. mortar and pestle
8. Centrifugal filtering machine
9. Measuring jars
10. Weighing machine
11. Musline cloth
12. Mixer grinder
13. Cutter

5.3 REVIEW OF LITERATURE :

Thorough literature survey of ayurvedic & modern text along with reported research work in concerned subject will be done

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5.4 Methodology :- Above raw material will be purchased from local market, analytical study will be performed in lab. In vati kalpana :-

General method of preparation :

A) With the help of agni :

Double quantity of guda (jaggery) will be taken in clean wide mouth vessel, add with required quantity of water, place over mild fire and will be heated with frequent stirring. When paka of suitable consistency will be obtained the fine powder of above medicinal drugs will be added little by little into the vessel and stirred well to roll the pills of desired size and shape.

B) without the help of agni :

Guda (jaggery) will be pounded well in khalwa yantra, by adding fine powder of above medicinal drugs little by little. When all the drug powder will be incorporated into the base drug by pounding, the mixture will further be pounded to obtain a smoother and homogenous drug mass, later the pills of desired size and shape will be rolled.

C) Granules formation:

As mentioned above the paka of suitable consistency will be obtained, the fine powder will be added, stir well and granules will be prepared as per classical method. Before preparation of the vati, Bhallataka shodhana will be done in the Narikela jala for 2 hours. After purification the Bhallataka will be mixed with the above ingredients.

5.5 ANALYTICAL STUDY

1. Organoleptic evaluation

- i. Shabda Surface texture
- ii. Sparsha Consistency
- iii. Roopa Appearance
- iv. Rasa Taste
- v. Gandha Odour

2. Physico chemical study

- i. Moisture content
- ii. Total ash value
- iii. Extractive values
- iv. PH
- v. TLC

3. Analytical study of vati

- I uniformity of the tab (wt . variation)
- ii tab disintegration time
- iii tab hardness
- iv loss on drying(moisture content)
- v total ash
- vi acid insoluble ash
- vii water insoluble extractives
- viii alcohol soluble extractives
- ix shelf life

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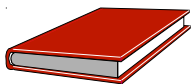
**Physico-Chemical & Analytical Study of
Rasa Parpati With Special Reference
To Different Pressing Materials**



Roshni Gajbhiye

Physico-Chemical & Analytical Study of Rasa Parpati With Special Reference

Experiment :



To Different Pressing Materials

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Abstract :

Ayurveda is science of life, many forms of medicine are described in it. Ras shashtra and bhaishajya kalpana is branch of Ayurveda where various forms of medicine, preparation of medicine are explained. Parpati is one of form specially mentioned for Grahani disease.

Rasa Parpati is mainly used in "Grahani Roga". Rasa parpati is most useful in intestinal diseases. It is useful in activating digestive system. It act more frequently on intestinal diseases with comparison to other medicinal kalpana's. According to some scholar, by preparing parpati the kajjali and other medicines in parpati does not get digest in stomach ,it get digest in intestine (grahani)etc. Because of that it have important effect on Grahani roga. Parada and Gandhaka is important constituent of parpati hence, parpati is jantugna, pachaka etc.

Key Words-

Grahani Roga, Parpati kalpana , Pharmaco-therapeutic, Pressing Materials.

Total No. Of Ref. - 04

1) Introduction :-

Rasashastra is one of the pharmaco-therapeutic branch of Ayurveda. Rasashastra means "science of mercury". It is specialized branch of Ayurveda mainly deals with materials known rasa dravyas. It contains many of the inorganic , herbo-menaral and metallic pharmaceutical preparation namely Kalviya rasayana, Parpati rasayana etc.These Rasa dravya have the characteristics of instant effectiveness and require very small does for administration.

Parpati rasayana is a flake form of mercury preparation. It is one of the mineral and metallic formulation which is classical and therapeutically effective. The name Parpati is given because of it's form and method of preparation in the form of flakes. This is also said above it because of its similarity to " parpata (papada)".

Parpati rasayana have high therapeutic values and potency. Parada and Gandhakaare essential constitution of Parpati kalpana prepared with aid of heat.

Rasa Parpati is mainly used in "Grahani Roga". Rasa parpati is most useful in intestinal diseases. It is useful in activating digestive system. It act more frequently on intestinal diseases with comparison to other medicinal kalpana's. According to some scholar, by preparing parpati the kajjali and other medicines in parpati does not get digest in stomach ,it get digest in intestine (grahani)etc. Because of that it have important effect on Grahani roga. Parada and Gandhaka is important constituent of parpati hence, parpati is jantugna, pachaka etc.

Parpati is prepared by paka process of kajjali. The kajjali is been heated in loha patras coated with ghrita and when it get melted it is to be poured on kshareeya leaves i.e. banana leaves etc. placed on gomaya and it is pressed by another leaf from above and parpati is formed. For parpati preparation different kshareeya leaves can be used like Bannana leaves, Eranda leaves etc.

Many of the text has mentioned that by placing the leaves on Gomaya and preparing parpati, the component of gomaya i.e. pitta(bile) get transfer in parpati which make it more effective in intestinal diseases. It is also said thatpreparing parpati on different leaves improve its potency by absorbing kshara (alkalies) from the leaves. And if it is said so then it may show changes in their analytical study.

2.1 Need of present study:

Many research works have been done on Rasa Parpati for it's actions on grahani roga.No research work is been done to detect pitta i.e. bile and alkalies present in Rasa Parpati which is said to be transfered from gomaya and leaves respectively.Hence, this research work is undertaken, to establish and confirm the analytical changes occur in Rasa Parpati prepared by using different pressing materials.

2) Review of Literature :

Molten kajjali when poured on mocha patra and pressed then it forms parpati.

According to some scholars it is said that Parpati can be prepared on various types of kshariya leaves like, banana leaves, eranda leaves,etc

Literature of "Rasa Parpati" from samhita, various classical texts, journals, internet, manuals will be reviewed as and when nessesary.

Previous work done onRasa Parpati:

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- ✦ Vd.Anjali Thapa- A comparative Analytical study of saagni and niragni murchana of parade w.s.r.to Kajjali, RasaParpati, Rasasindura , Nagpur University, 2005-2006
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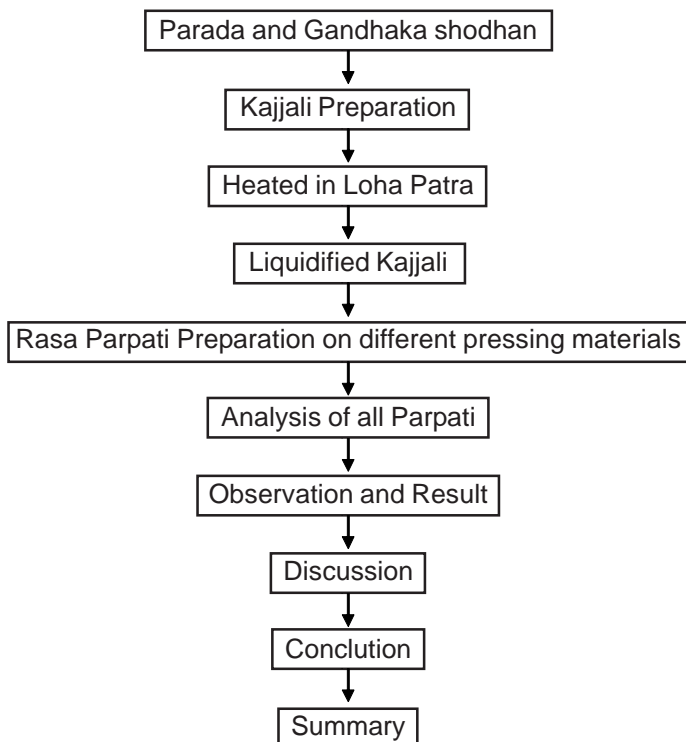
3) Aims and Objective :

5.1. Aims : To prepare Rasa Parpati using different pressing materials and study analytical changes.

5.2. Objective:

- i. Analysis of raw material.
- ii. Shodhan of Parada and Gandhaka with standard operating procedure and preparation of kajjali.
- iii. To prepare Rasa Parpati with standard operating procedure by using three different pressing materials.
- iv. To analyze and compare all these Rasa Parpati .

4) Hypothesis: Analytical variations regarding sharas are expected with different materials used for pressing parpati.

5) Study Design:

Materials and Methods :**8.1. Material :**

Raw materials will be purchased from approved pharmacy.

Sr.no.	Ingredients	Latin Name	Proportion
1.	Parada	Hydrargyrum	1 part
2.	Gandhaka	Sulphurium	1 part

Supplementary Materials for :

- a) Parada Shodhan :
 - Khatika(lime)
 - Lasuna(garlic)
 - Lavana(salt)
- b) Gandhaka Shodhan :
 - Bhringaraja Swaras
- c) Parpati :
 - Kadali Patra
 - Eranda Patra
 - Ceramic tiles
 - Goghrita
 - Gomaya
- I. Equipments&instruments : Equipments required are as follows:
 - Gas burner
 - LPG gas cylinder
 - Utensils (Iron Vessels)
 - Lighter
 - Measuring Jar
 - Weighing machine
 - Spatula
 - Cotton cloth
 - Spoon
 - Glass containers
 - Iron sieve
 - Mortar and pestle

8.2. Methodology:**8.2.A Method:**

- Above equipments will be used for preparation.
- Parada Shodhan : Parada and Khatika will be taken in same proportion and mardan will be done for three days then sieve it by cloth, then same proportion of Lasuna(garlic) and half the proportion of lavana(salt) is taken and mardan will be done till lasun kalka become black in colour. Then wash it by jala .

- Gandhaka Shodhan :Gandhaka Shodhan will be done by Dhalan in Bhringaraja swarasa for seven times.
- Kajjali will be prepared by standard operating procedure.
- Kajjali will be heated in iron utensil coated with ghrita till it melts, then Rasa Parpati will be prepared by poring the liquid kajjali on different leaves which are placed on gomaya and ceramic tiles.
- Analytical study of Kajjali and all parpati, will be done.

8.2.B Analytical study:

1. Organoleptic tests of Raw materials and Final product:
 - Shabda
 - Sparsh
 - Rupa
 - Rasa
 - Gandha
 - Nishchandra test for kajjali
 - Kalpa siddhi lakshanas for parpati.
2. XRF analysis of Parada and Gandhaka before and after shodhana :
3. Analytical study of Rasa Parpati :
 - Ash values
 - pH
 - % of fat
 - Instrumental method of analysis like EDAX, AAS, ICP-AES or XRD as required.
 - Sulphur powder test for bile.

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**Physico-Chemical Analysis of
Ksheerpak Kalpana With Special Reference
To Arjuna Ksheerpak**



Ashwini Bodade

Experiment :

Physico-Chemical Analysis of Ksheerpak Kalpana With Special Reference To Arjuna Ksheerpak



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Abstract :

Every dravya can be a medicine but some pharmaceutical procedures are done to change or potentiate its original properties.

The basic idea behind the administration of drug is to make it more suitable to the body elements. To achieve this, many processes were invented in a sense of manufacturing process, these are termed as Kalpanas. Our Acharyas elaborated all those kalpanas with effective properties of a Dravyas.

Arjun Ksheerpak is the formulation which is indicated under "Hrudrogadhikar" in the text Chakradatta, Ashtang Hrudaya, Yog ratnakara and Bhaisajya Ratnavali etc.

Just to provide more support to the directives of our sages the plan one research oriented study to evaluate the theme of "Bahukulpam" and to explore the hidden pharmaceutical wisdom of "Ksheerpak Kalpana".

Key Words-

Arjun Ksheerpak, Hrudrogadhikar, kshirpaak

Total No. Of Ref. - 12

1. Introduction:

As a science of Life and Health, the different branches of Ayurveda have evolved over the long period as health being mainly concerned with keeping the body fit and preventing as well as curing the diseases, which were its main objective. Logically therefore, there has been a constant research on therapeutic agents that keep the body fit, increase its capacity to combat a disease and bring it back to normal. These therapeutic agents are termed as Drugs.

In ancient time, man survived on roots, fruits etc. raw material which are obtained from nature, but gradually his knowledge was increased and as mentioned by Acharya Charaka,

विघ्नभूतायदारोगाः प्रादुर्भूताः शरीरिणाम् । - च. सू. १/१६

As the complexity of diseases increased, his knowledge of plants and their properties, increased gradually and

नानौषधिभूतंजगतिकिञ्चिद्द्रव्यमुपलभ्यते । - च. सू. २६/१२

Every dravya can be a medicine but some pharmaceutical procedures are done to change or potentiate its original properties.

The basic idea behind the administration of drug is to make it more suitable to the body elements. To achieve this, many processes were invented in a sense of manufacturing process, these are termed as Kalpanas. Our Acharyas elaborated all those kalpanas with effective properties of a Dravyas.

कल्पयन्तेव्यवस्थाप्ययन्तेप्रयोगाः अनेन इतिकल्पना । कल्पएवकल्पनम् ।

कल्पनम्पुनः शरीरेउपयोगार्थप्रकल्पनसंस्करणमितियावत् । च.

Success of two CikitsaCatuspada i.e. Bhisaka and Paricaraka are influenced by the properties of Bhesaja. This Bhesaja can be taken in consideration with the trifold application i.e. pharmacognostic, pharmaceutical approach and approach of Therapeutic management.

The Bhesaja in accordance to the requirement is flourished by undergoing different modulations. These efforts designed a new branch Bhaisajya Kalpana, An Ayurvedic Pharmaceutical science. Bhesajya Kalpana comprises two words Bhesaja and Kalpana.

Kalpana or the formulations are performed to potentiate properties of drugs. This branch contributed to aid the physician to utilize this Bhesaja in various forms and styles to fight the disease. Sometime to compete with need of all time availability, easy dispensing, palatability etc and for such enumerable reasons a lot and lots of Kalpana developed. But the base of all these were imbibed in five basic Kalpana only.

In this development process Ksheerak Kalpana proved itself as the best by competing and conquering both need, i.e need of palatability along with need of nutrition to be provided during the course of disease. As Ksheer is very famous and aajanmyasaatmyadravya (सर्वप्राणभूतांसात्स्यं.... - च. सू. १/१०९) as described by Ayurveda, it also has jeevaniya, rasayana property helps in rejuvenation of dhatu that gets vitiated by doshas, it is easy to administer in all age groups. Hence Ksheerak Kalpana proves more beneficial as it is having medicinal as well nutritive values, important one is that the Ksheer used in this kalpana acts as a solvent for maximum extraction from the raw drugs.

Arjun Ksheerak is the formulation which is indicated under "Hrudrogadhikar" in the text Chakradatta, Ashtang Hrudaya, Yog ratnakara and Bhaisajya Ratnavali etc.

Just to provide more support to the directives of our sages the plan one research oriented study to evaluate the theme of "Bahukulpam" and to explore the hidden pharmaceutical wisdom of "Ksheerak Kalpana".

1.1) Need of present study:

- I. Prior to the present study, no work has been done in comparative aspect between Arjuna ksheerpaka prepared by different methods, i.e 1:8:32, 1:4:16 and 1:15:15, 1:4:4.
- II. Many research works have been done on Arjuna for its Cardio protective and Antihyperlipidemic actions
- III. As far as Arjuna Ksheerapaka is concerned till date no research work had been done regarding comparison between ksheerpaka prepared by four different methods.
- IV. Hence, this research work is undertaken, to establish and confirm a better method to prepare Arjuna Ksheerapaka so as to obtain maximum quantity of its active ingredient by ksheerpaka kalpana.

2. Previous work done on Arjuna kshirpaak:

- Sastri B S R L N – A comparative study on the effect of Arjuna ksheerapaaka and Rasona ksheerapaaka in the management of hypertension. Dr.BKRR Govt. Ayurvedic college A P University, Vijayawada, Hyderabad, 2003.
- Kulkarni J. S.–Arjuna-tvaka ksheerapaakache Asthi-sandhan prakriyattel Mahattava, Tilak Ayurved mahavidhyalaya, Pune university, Pune, 1998

3. Hypothesis:

There will be significant differences in analytical study of Arjuna ksheerapaak prepared with four different methods.

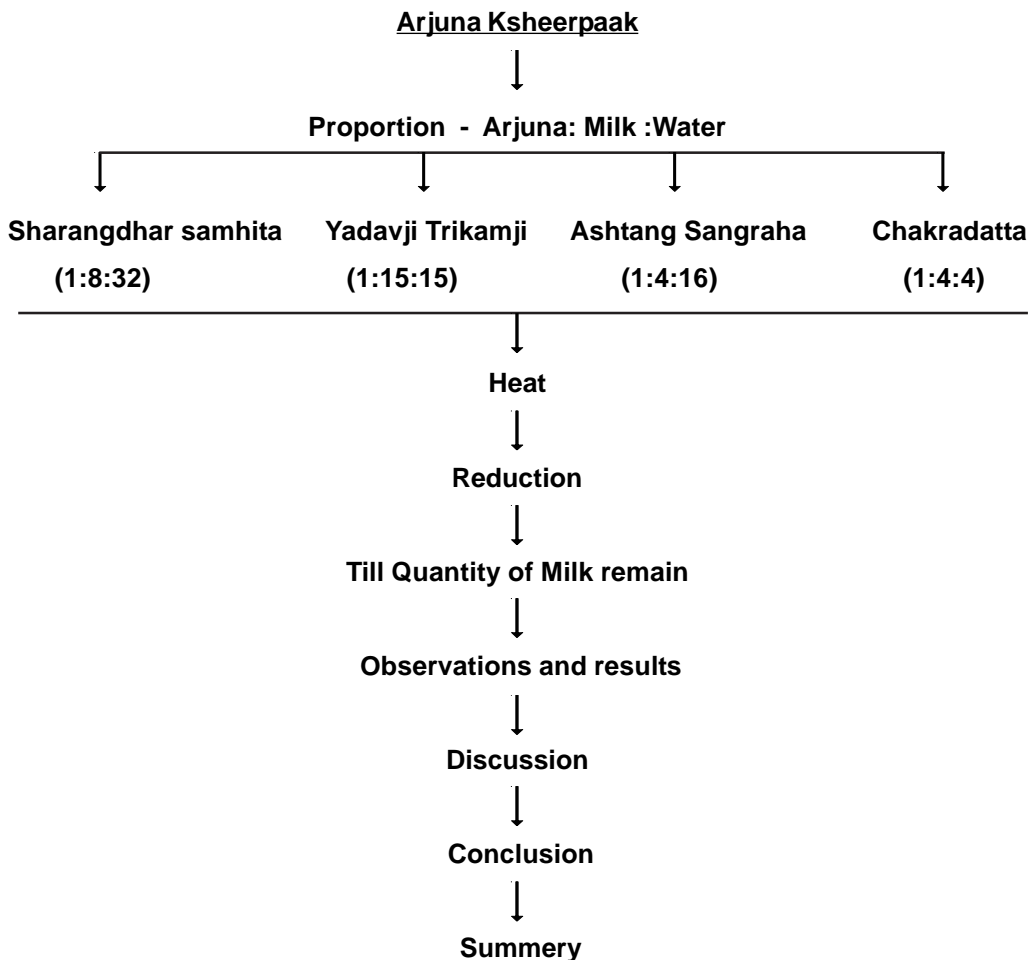
4. Aims and Objective:**4.1. Aims:**

To study Ksheerpak kalpana pharmaceutico analytically with special reference to Arjuna ksheerpak”

4.2. Objective:

- i. To prepare Arjuna kshirapaak with standard operating procedure (SOP) according to Sharangdhar Samhita (1:8:32)
- ii. To prepare Arjuna kshirapaak with standard operating procedure (SOP) according to Ya.Tri. (1:15:15)
- iii. To prepare Arjuna kshirapaak with standard perating procedure (SOP) according to Ashtang Sangraha (1:4:16)
- iv. To prepare Arjuna kshirapaak with standard operating procedure (SOP) according to Chakradatta (1:4:4)
- v. To analyze and Compare all these Arjuna kshirpaakas.

5. Study Design:



6. Materials and Methods :

6.1 Material :

I. Source of Material:

- Arjuna will be purchased from approved pharmacy.
- Milk will be purchased from approved dairy.

II. Equipments & instruments :Equipments required are as follows:

- Gas burner

- LPG gas cylinder
- Utensils (Stainless steel Vessels)
- Lighter
- Measuring Jar
- Mixer grinder
- Weighing machine
- Cutter
- Spatula
- Cotton cloth
- Spoon
- Glass containers
- Iron sieve
- Mortar and pestle
- Thermos

6.2 Literary Research:

6.2 A. Drug Review:

ककुभः शीतलोर्हुद्यः क्षतक्षयविषास्रजित् । मेदोमेहव्रणान् हन्ति तुवरः कफपित्तकृत् । - भा. प्र.

Kakubh is mentioned as Shit, Hrudyā(Good For Heart) also helpful for Prameha, medoroga, Vran(Wound)

Terminalia Arjuna Roxb (T.A.) is known by many common names such as Arjuna, Kakubha, Kahu etc. In Ayurveda, Arjuna tree bark is used from time immemorial as cardiogenic and as a medicine to treat heart diseases¹. This tree is mentioned in Rigveda. Ayurveda says one who takes Arjuna bark with milk will be relieved from heart diseases, bleeding disorders and chronic fever². It is an anti-oxidant that strengthens heart and gives long life. The tree bark when taken orally treats coronary artery diseases, reduces high blood pressure, lowers cholesterol, prevents angina or cardiac pain and strengthens heart³.

Terminalia Arjuna Roxb (T.A.) is a medicinal plant of the genus Terminalia, widely used by Ayurvedic physicians for its curative properties in organic/functional heart problems including angina, hypertension and deposits in arteries. Arjuna bark (Terminalia arjuna) is thought to be beneficial for the heart. This has also been proved in a research by Dr. K. N. Udupa in Banaras Hindu University's Institute of Medical Sciences, Varanasi (India). In this research, they found that powdered extract of the above drug provided very good results to the people suffering from Coronary heart diseases.

Though Acharya Charak had described this plant under udard-prashman⁴ (effective in urticaria) and kashaya skandh dravya⁵ and not under hridya-gana⁶ (effective for heart) but

Chakrapanidatta and Bhavamishra had mentioned it effective for heart problem⁷. Its action is specific for the heart and is useful in all types of heart diseases, promoting heart function and adding in longevity. It helps in the recovery after heart attacks as well as in their prevention. Arjuna is used for Heart diseases in the doses form of kshirpaak.

6.2 B. Review of Godughdha (Cow's milk)⁸:

Milk contains all the elements necessary for the growth and nutrition of bones, nerves, muscles and other tissues. Cow's milk contains on an average albuminoides, fats, sugars and various salts. It contains large proportion of Calcium phosphate and important salts required for formation of bone ad also for the proper coagulibility of blood. The inorganic constituents of Cow's milk containing mineral salts are potassium and magnesium phosphates, sodium chlorides and trace of phosphorus, iron, sulphur and chlorine. The composition of milk specially the fat and some extend the protein contain varies from time to time.

6.2 C. Ksheerapaak Review:

Ksheerapaka is prepared by boiling the required amount of churna, with the required amount of Ksheera (Milk) and Jala (Water) until only milk part remains. This procedure will be carried out under Mandagni (mild fire).

१. क्षीरमष्टगुणं द्रव्यात्क्षीराञ्जीरं चतुर्गुणम् ।

क्षीरावशेषंतत्पीतंशूलमामोद्भवञ्जयेत् ॥ १६३ ॥

- शा. सं. म. खं. अ. २/१६

Classical method of preparation of Ksheerapaka is mentioned in above shlok i.e.

MILK + 8 DRAVYA(MEDICINE) + 4 WATER

6.2 D. Arjuna Ksheerapaak Review:

As per Yog Ratnakar:

अर्जुनस्यत्वचासिद्धं क्षीरं पित्तहृदार्तिजित् ।

- यो. र.

Helpful for Skin,Heart,Pitta Dosha

As per Chakradatta, Bhaishajya Ratnavali:

अर्जुनस्यत्वचासिद्धं क्षीरं योज्यमहृदामये ।

- चक्रदत्त ३१/८ हृद्रोगचिकित्सा / भैषज्यरत्नावली हृद्रोगचिकित्सा

- As per Sharangdhar samhita proportion of dravya, ksheera and water is 1:8:32
- As per Yadavji Trikamji proportion of dravya, ksheera and water is 1:15:15
- As per Ashtang sangraha proportion of dravya, ksheera and water is 1:4:16
- As per Chakradatta proportion of dravya, ksheera and water is 1:4:4

6.3 Methodology:

6.3 A. Pharmaceutical Study:

Ksheerapaka kalpana can be termed as Medicated Milk which is prepared by boiling the Milk with Drug and Water until only milk part remains and thus can also be called as Milk Decoction. References of Ksheerapaka are available in Sharangadhara samhita⁹, Astanga sangraha¹⁰, Dravyaguna vijnana¹¹ and Charaka samhita¹² and Chakradatta¹³. The ratio of Drug, Milk and Water differ in each treatise. The details are mentioned in the table below:

Reference	Sharangadara	Astanga sangraha	Yadavji Trikamji Charak	Acharya and Chakradatta
Arjuna (Terminalia Arjuna Roxb)	1 part	1 part	1 part	1 part
Cow's Milk	8 parts	4 parts	15 part	4 parts
Water	32 parts	16 parts	15 part	4 parts

VridhaVagbhata while describing the method of ksheerpaka stated to prepare the Kashaya of Arjuna bark as per the texts, after that equal quantity of milk is to be added, and then this mixture should be heated or boiled until only milk remains.

The Arjuna Ksheerapaka is prepared by boiling the required amount of Arjuna dried bark, with the required amount of Ksheera (Milk) and Jala (Water) until only milk part remains. The above procedure will be carried out under Mandagni (mild fire).

Method-1 (According to Sharangadhara)

SL	Ingredients	Latin name	Parts used	Proportion
1	Arjuna	Terminalia Arjuna Roxb	Bark	1
2	Ksheera	Milk of Cow	Whole	8
3	Jala	Potable Water	Whole	32

Preparation Method: (1:8:32)

As per above proportion Cow's milk and water will be taken in stainless steel vessel. Arjuna powder will be added. Heat will be given till quantity of milk will remain.

Method-2 (According to Ashtang Sangrah)

SL	Ingredients	Latin name	Parts used	Proportion
1	Arjuna	Terminalia Arjuna Roxb	Bark	1
2	Ksheera	Milk of Cow	Whole	4
3	Jala	Potable Water	Whole	16

Preparation Method: (1:4:16)

Arjuna kashaya will be prepared as per slandered operating procedure of kashaya and equal quantity of milk will be added in filtered arjuna kashaya. Heat will be given till quantity of milk will remain.

Method-3 (According to Yadavji Trikamji Acharya)

SL	Ingredients	Latin name	Parts used	Proportion
1	Arjuna	Terminalia Arjuna Roxb	Bark	1
2	Ksheera	Milk of Cow	Whole	15
3	Jala	Potable Water	Whole	15

Method of preparation: (1:15:15)

Cow's milk and water will be taken as per above given proportion. One part of Arjuna powder will be added. Heat will be given till quantity of milk will remain.

Method-4 (According to Charak and chakradatta)

SL	Ingredients	Latin name	Parts used	Proportion
1	Arjuna	Terminalia Arjuna Roxb	Bark	1
2	Ksheera	Milk of Cow	Whole	4
3	Jala	Potable Water	Whole	4

Method of preparation: (1:4:4)

Paste of Arjuna powder will be prepared by adding water and milk will be added in above given proportion. Heat will be given till quantity of milk will remain.

6.3 B Analytical study :

1. Organoleptic tests:
 - Colour
 - Odour
 - Taste
2. Physiochemical :
 - Moisture content
 - Water soluble extract (5% solution)

- PH
 - Identity test (Like TLC, paper chromatography)
 - Specific gravity
 - Viscosity
3. Nutritional values:
- Macronutrients
 - Micronutrients
 - Total solid contents

11. References:

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11. K. Shastri. Charaka Samhita of Charaka. Gangasahaya Pandeya (ed). Reprint ed. Varanasi: Chaukhamba Sanskrit Sansthan; 2009 vol 2. p.175.
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**Comparative Physico-Chemical Analysis of
Mandoor Bhasma, Swarnamakshik Bhasma
and Mandoormakshik Bhasma**

Experiment :

Comparative Physico-Chemical Analysis of Mandoor Bhasma, Swarnamakshik Bhasma and Mandoormakshik Bhasma



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LRBP Ayurvedic medical college, hospital, PG institute, Islampur.

Abstract :

This science is often referred to a 'alchemy' and the resultant medications are called rasas, which mainly comprises of metallic ashes called bhasmas. These bhasmas or lighter forms of metals are contained in organo-metallic compounds (loha kalpas) that work as carriers (yogavahi). They act as catalysts and increase the bioavailability of the herbs to the cell. In this science there are groups of mineral/metals named as Maharas, Uparas, Sadharan Ras, Sudha Varga, Dhatu varg, Ratna Varga.

Bhasma is herbometalic formulation, Metallic ions well known for its quick effectiveness, smaller dose and Long shelf life.

According to modern science mandoor is Iron Oxide produced naturally & according to ancient concept swarna makshik is claimed to gets its origin from swarna saila. Swarnamakshika is one among the MAHARAS. It is a compound of Copper, iron and sulphur, these three elements are essential and play role in the formation of Haemoglobin and it has a Yogwahi property.

Key Words- Mandoor Bhasma, swarnamakshik bhasma, mandoormakshik bhasma.

Total No. Of Ref. - 5

1.1- INTRODUCTION :

Rasashastra may be defined as a branch of ayurveda deals with the study of minerals, metals & their therapeutic effects the qualities like quick action, prolonged shelf life & better palatability to ras aushdhies have helped to conquer the demands of patients. In Rasashastra shodhana, marana, jarana, murchan are use as a pharmaceutical process for metals, minerals, poisonous, herbal drugs and animal products to use them therapeutically in practice of Ayurveda.

Some metals and minerals, vegetables and animal products are toxic by nature. To make them free from toxicity & to make them easily digestible, absorbable & assimilable these are subjected to the process to shodhana and marana. It is it because of these it products are include within scope of the Rasashastra.

This science is often referred to a 'alchemy' and the resultant medications are called rasas, which mainly comprises of metallic ashes called bhasmas. These bhasmas or lighter forms of metals are contained in organo-metallic compounds (loha kalpas) that work as carriers (yogavahi). They act as catalysts and increase the bioavailability of the herbs to the cell. In this science there are groups of mineral/metals named as Maharas, Uparas, Sadharan Ras, Sudha Varga, Dhatu varg, Ratna Varga.

Bhasma is herbometalic formulation, Metallic ions well known for its quick effectiveness, smaller dose and Long shelf life.

According to modern science Mandoor is Iron Oxide produced naturally & according to ancient concept swarna makshik is claimed to get its origin from swarna saila. Swarnamakshika is one among the MAHARAS. It is a compound of Copper, iron and sulphur, these three elements are essential and play role in the formation of Haemoglobin and it has a Yogwahi property.

1.2 Need of Study :-

As far as Mandoormakshik bhasma is concerned till date no research work had been done regarding analytical comparison between Mandoor bhasma, Swarnamakshik bhasma and Mandoormakshik bhasma.

Mandoor bhasma is proven Haematinic, it is oxide form of Iron. Swarnamakshik bhasma is copper pyrite and proven as a haematinic So both the Bhasmas are proven haematinics then why the combination is introduced?

Its different method of Preparation can give new properties than two bhasmas,

So this study will be taken to rule out its properties.

Anemia' The most common Nutritional deficiency Worldwide occurs when RBC's don't carry enough Oxygen to the body's tissues. The HB content of Anemic blood is lower than normal as a result of deficiency of essential nutrients

In India, anemia disproportionately affects women According to research 20-40% of maternal deaths are due to anemia, 80-90% of preschool children, pregnant and lactating women, and adolescent girls have anemia.

According to Rasatantrasar Siddhaprayog sangrah Indications of Mandoormakshik Bhasma are Garbhini pandu, kamla, pittaj grahani, parinam shool, shirshool etc so this combination may be more useful in above conditions

All the ingredients used for Shodhana and Marana of this bhasma are herbal so it will be more bioavailable and cost effective.

So Present study is the first step is to analyze this combination.

2- PREVIOUS WORK DONE :-

- 1- Pharmaceutical & analytical study of Swarnamakshik bhasma prepared by two different methods of marana (MUHS 2012-2013)
- 2- comparative study of mandoorbhasma Prepared by two different methods with reference to R.R.S.& rastaringini (MUHS 2012-2013)

3- Hypothesis :-

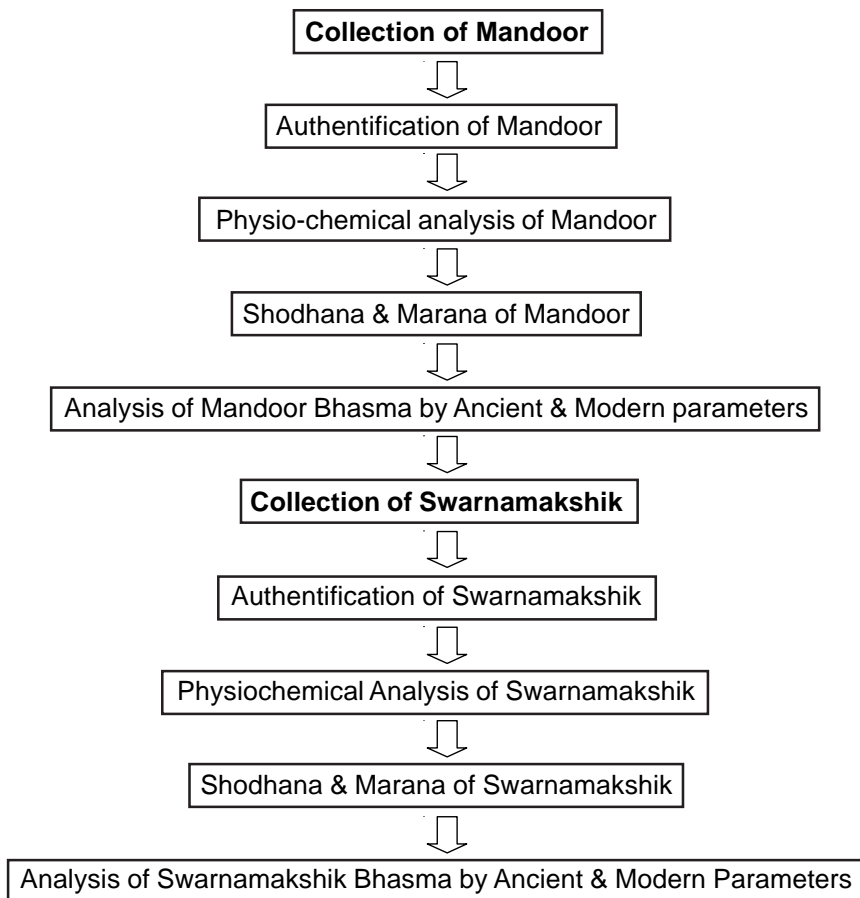
The pharmaceutical procedures of Mandoormakshik bhasma may give superior analytical qualities than Mandoor bhasma and Swarnamakshik bhasma.

4- AIM AND OBJECTIVES :-**4.1- AIM :-**

To Study **“COMPARATIVE PHYSICO-CHEMICAL STUDY OF MANDOOR BHASMA, SWARNAMAKSHIK BHASMA AND MANDOORMAKSHIK BHASMA”**

4.2- OBJECTIVES :

- 1) Shodhana and Marana of Mandoor as per Classical reference mentioned in Samhitas.
- 2) Shodhana and marana of Swarnamakshik as per Classical reference mentioned in Samhitas .
- 3) Marana of shuddha mandoormakshik as per Classical reference mentioned in Samhitas.
- 4) Analytical study of
 - Mandoor Bhasma,
 - Swarnamakshik Bhasma
 - Combination of separately prepared Mandoor and Swarnamakshik Bhasma
 - Combinely prepared Mandoormakshik Bhasma.

5- STUDY DESIGN :**5.1- For Mandoor :-****5.3- For Mandoormakshik :-**

Marana of Shuddha Mandoor +Shuddha Swarnamakshik

Analysis of Mandoormakshik bhasma by Ancient & Modern Parameters

5.4- Analysis of combination (equal proportion) of separately prepared Mandoor and Swarnamakshik bhasma.

6- MATERIALS ANDMETHODS :-

6.1- Materials :- Following drug will be used for research work

6.1.1) For Shodhana of Mandoor(Iron Oxide) :-

- Mandoor
- Gomutra
- Trifala kwath

6.1.2) For Shodhana of Swarnamakshik(Chalco Pyrite) :-

- Swarnamakshik choorna:- 3 parts
- Saindhav :-1part
- Nimbu swaras :-5 parts

6.1.3) For Marana of Mandoor :-

- Shuddha mandoor
- Trifala kwath

6.1.4) For Marana of Swarnamakshik :-

- Shuddha Swarnamakshik
- Kulatthya kwath
- Erand tail
- Takra
- Aja mutra

6.1.5) For Marana of Mandoormakshik :-

- Shuddha Mandoor
- Shuddha Swarnamakshik
- Gomutra

6.2- EQUIPMENTS :-

- Gas burner,
- holder, Measuring cylinder,
- Stainless steel pot,
- Sharava samput,
- Multani mitti,
- Cloth,
- Cow-dungs,
- Khalvayantra.

6.3- METHODS :-**Shodhana and Marana of Mandoor :-**

गोमुत्रैत्रिफलाक्वाथातत्क्वाथेसेचयेच्छनैः ।
लोहकिट्टसुसंतप्तंयावज्जीर्यतितत्त्वयम् ।
तच्चूर्णजायतेपेष्यमण्डूरोयंप्रयोजयेत् ॥

र. र. स ५/१५१

Shodhana of Swarnamakshik :-

एरण्डतैललुङ्गम्बुसिध्दंशुध्दयतिमाक्षिकम् ।
सिध्दंवाकदलीकन्दतोयेनघटिकाव्ययम् ।
तप्तंक्षिप्तंवराक्वाथेशुध्दिमायतिमाक्षिकम् ॥ ७८ ॥

र. र. स २/८३

Marana of Swarnamakshik :-

अजामुत्रेथवातैलेकषायेवाकुलत्थजे ।
तक्रेवाघार्षितंमिथतेस्वर्णमाक्षिकम् ॥

- रसचंडांशु

Marana of mandoormakshik :

Shuddha mandoor + Shuddha swarnamakshik



Mandoor+Swarnamakshik is powdered and Triturated with Gomutra for 12 Hours
& dried in sun light after making Cakrika



Then again triturate in Gomutra & after sharavasamputa Gajaputa is needed.



Such 3 Gajaputas result in making mandoormakshik bhasma

- Rasatantrasaar Siddhaprayog Sangrah- part 1st

6.4- Review of Litratue :-

Detail information will be reviewed from various Ayurvedic Samhitas in chronological order, modern texts, journals, research papers and internet.

6.5- Physiochemical Analysis

6.5.1- Analytical study :

- 1) Particle size
- 2) Loss on drying at 105°C
- 3) Total ash
- 4) Acid soluble Extractive
- 5) Water soluble Extractive
- 6) XRF
- 7) A.A.S. (Atomic absorption spectrophotometer) if necessary
- 8) SEM

6.5.2- Ayurvedic parameters -

- Nishchandrikatva (Lustreless)
- Rekha Purnattva (Fine enough to enter finger crevices)
- Varitaratva (Float on water)
- Nirdhoomatva (Smokeless)
- Niswadu (Tasteless)
- Apunarbhavatva (Irreversible)
- Amla pariksha

7- OBSERVATION AND RESULTS :-

Observations will be presented in flow charts or tables as required during SOP of Mandoor Swarnamakshik & Mandoormakshik shodhana and marana.

Observations related to analytical study of Mandoor Swarnamakshik & Mandoormakshik shodhana and marana will be presented in tabulation form.

References :

1. Bhaishajya-Ratnawali, Goviddas Sen tika of Kaviraj Ambikadatta Shastri, Chaukamba Sanskrit Sansthan, Varanasi, 15th edition, 2002.
2. Baghel M. S. "Reseaech in ayurveda", Baghel M.S., Baghel M. S. "Reseaech in ayurveda" 2nd edition 2005.
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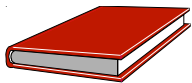
Pharmaceutico-Analitical Study of Aragwadhadi Tail



Jayashree Kolhe

Experiment :

Pharmaceutico-Analitical Study of Aragwadhadi Tail



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Abstract :

Ayurveda is ancient science of medicine, where the medicine prepare from plant and mineral origin. Various methods of purification, preparation are found.

Rasa-shashtra is main subject of Ayurveda where these methods are explained

For the preparation of medicine and also for absorption of medicine in human body special method known as SNEHKALPANA is mentioned in Bhaishajya kalpana.

Sneha murchana is the important process before the preparation of taila or ghrita.

This is the procedure where raw sneha (oil or ghee) is boiled with the fine powder of selected medicinal drugs and desired quantity of water to get rid of ama disha and bad odour present in it.

This process is helps in enhancing the properties of sneha.

Sneha kalpana is the upakalpana of panchavidha kashay kalpana.

In case of sneha kalpana , is the preparation prepared by using one part of kala dravya, 4 parts of sneha devta and 16 parts of Drava dravya

This mixture is boiled on a mandagni

Until sneha siddhi lakshanas appears.

Arargwadhadi tail is one of the unigue formulation among the formulations available for skin diseases for local application.Aragwadhadi tail is the combination of both rasa dravya like Hartal, Manshil and Bhaishajya dravya like Dhataki Pushpa, Aragwadhpatra etc.

Key Words- Aragawadhadi Analytical, Hartal, Manahshila

Total no. of Ref. (05)

INTRODUCTION :

The manufacturing technique where fat soluble and water soluble active principles are extracted in suitable fat media is termed as **Sneha kalpana** in Ayurveda

Tail preparation is a pharmaceutical process which is basically Sneha Kalpana. Sneha kalpana is one of the preparations of Bhaishajya kalpana. There are so many preparation, which have been mentioned in the ayurvedic Samhita's.

कल्काच्चतुर्णीकृत्य घृतं वा तैलमेव वा ।
चतुर्णे द्रवे साध्यं तस्य मात्रा पलोन्ममता ।।

शा. सं. (मध्यमखंड)

Sneha kalpas are a group of products of medicated ghee and oil. they have a better pharmacokinetics action in comparison to other dosage forms because of the lipid nature of bio-membranes of our body.

Therapeutic utility of taila is described on the basis of three types of snehapaka namely

These different paka highlights the importance of pharmaceutical aspect of the formulation.

Aragwadhadi tail is one of the unique formulation among the formulations available for skin diseases for local application. Aragwadhadi tail is the combination of both rasa dravya like hartal, manshil and bhaishajya dravya like dhataki pushpa, aragwadhapatra etc

Aragwadhadi tail needed more exploration regarding their therapeutic importance in kshwitra. Considering the above view present study will be carried out to understand a safer, potent and economic formulation of Aragwadhadi tail with modern parameters.

Need of Study:- As far as Aragwadhadi tailam is concerned till date no research work had been done regarding PHARMACEUTICO-ANALITICAL STUDY OF ARAGWADHADI TAIL.

AIMS AND OBJECTIVES

1) AIM :- 'To STUDY "PHARMACEUTICO-ANALITICAL STUDY OF ARAGWADHADI TAIL"

2) OBJECTIVES:-

- 1) To find out the classical reference of aragwdhadi tailam from other samhita's
- 2) To prepare Aragwadhadi tailam as per classical reference.
- 3) To analyze Aragwadhadi tailam using physical and chemical analytical parameters.

REVIEW OF LITERATURE :-

Detail information will be collected from various *Ayurvedic Samhita*, modern texts, Journals & research paper & scientific networks. (Literary research) References of Aragwadhadi tailam in other samhitas-

1. *Chakardatta*

2. *Bhaishajya Ratnavali* :

PREVIOUS WORK DONE :

No work is done on Aragwadhadi tailam.

MATERIAL AND METHODS :-

1. Identification & Authentification of drug will be done in Rasashastra & BK, Dravyaguna Dept and research unit Department in Ashvin Rural Ayurved College & Hospital, Manchi Hill, Sangamner with reference Ayurvedic Pharmacopeia.
2. Literary data will be collected from Vedic scriptures, Ayurvedic text books, Articles published in reputed journals, Retrospective studies conducted in relation to the study, Modern literature if any and Internet.
3. Raw materials will be collected from the genuine sources like Pharmacies, Chemical stores, Market, etc.

MATERIAL :**For Tail murchana :-**

Trifala, Manjishtha, Haridra, Nagarmotha, Lodhra, Vatankur, Vala, Kewda, Kumari, Kamal deth

For hartal shodhana -**for Aragwadhadi Tailam -**

- Aragwadhpatra
- Dhatkipushpa
- Kushta
- Hartal
- Manashil
- Haridra
- Daruharidra

METHODS :-**1. Shodhana of HARTAL by following method-**

तालकं चुणुतयत्वा तू पोडुल्यां ववतनधाय च।

दोलायमत्रे पचेद्दामं कूष्मामडसशलले शिषक्।।

यामैकं चुणुतोयेन त्रैफलेन जलेन वा।

इत्थं यामद्वयेनैव शुन्धियात्यात्यनुत्तमाम्।।

रसतरङ्गणी ११/१९-२०

Swedana of hartal churna in dolayantra containing Kushmanda swaras for 1 Prahara and then boiled in Trifala kashay for 2 Prahara.

2. Shodhana of MANSHIL by following method-

भङ्गाजर्सेनेह दोलायमत्रे ववपागचता ।

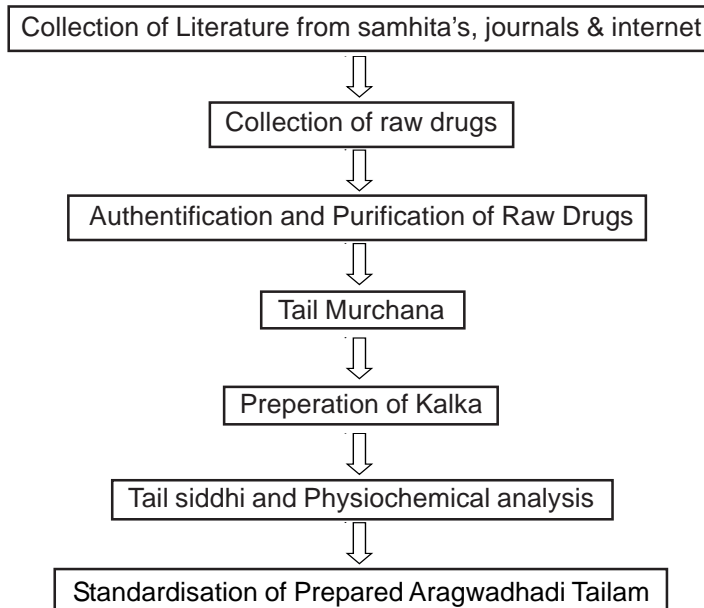
चतुयुमं रोर्शशला शुन्ध्यायात्यनुत्तमाम् ।।

रसतरङ्गणी ११ / ११०

Swedana of Manshil in dolayantra containing bhrungraj swaras for 4 Prahara.

3. Tail murchana**4. Preperation of kalka****5. Preperation of Aragwadhadi tail as per classical process.**

The prepared samples were analyzed for the parameters such as organoleptic study, moisture content, total ash, acid insoluble ash, alcohol soluble extractive, hexane soluble extractive, qualitative organic analysis, free fatty acid, acid value, saponification value, iodine value and refractive index.

DETAIL OF STUDY SUBJECT:-**Plan of study:-**

1. Literature - Drug review.

2. Pharmaceutical study -

a) Analysis of raw material.

b) Purification of raw material.

c) Analysis of tailam.

3. Analytical study –

3.1 Organoleptic character -

a. Rupa (colour)

b. Gandha (Odour)

c. Rasa (taste)

d. Sparsha (touch)

Physicochemical parameters-

a. Refractive index.

b. Specific gravity.

c. PH value.

d. Acid value.

e. Saponification value.

f. Iodine value.

Types of study :

To Study “PHARMACEUTICO-ANALITICAL STUDY OF ARAGWADHADI TAIL”

Duration of study:- 2 To 3 Years

Observation :-

Physicochemical analytical and finding will be observed.

STATISTICAL METHODOLOGY :-

The collected data will be properly analyzed by using appropriate statistical tests.

DISCUSSION :

In this section the details of findings & observation of various studies will be discuss in scientific manner as possible.

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1. Bhaishajya-Ratnawali, Govinddas Sen tika of Kaviraj Ambikadatta Shastri, Chaukamba Sanskrit Sansthan, Varanasi, 15th edition,2002.
2. Baghel M. S. "Research in ayurveda" , Baghel M.S., Baghel M.S. "Research in ayurveda" 2nd edition2005.
3. Rastaringini, Vd. Kashinath Shastri. Motilal Banarasidas, Delhi 11th -2004
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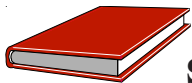
**A Comparative Pharmaceutical Preparation And
Analysis Of Arka Lavana Using Saindhava Vis-À-Vis
Samudra Lavana**



Swapnil Kasar

Experiment :

A Comparative Pharmaceutical Preparation and Analysis Of Arka Lavana Using Saindhava Vis-À-Vis Samudra Lavana



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Abstract :

Ayurveda the science of life, Ayurveda compound formulations are divided into two groups

- 1) *Kastha aushadhi* (herbal) and
- 2) *Rasa aushadhi* (Herbo-mineral).

Predominantly plant drugs are used for preparation and mainly deal with *Bhaishjya Kalpana* So far as *Bhaishajya Kalpana* is concerned, it can not be correlated exactly with either pharmacy or any other single subject in the present modern science, but it may be looked upon as a cumulative form of pharmacy, pharmacognosy, pharmacology, materia medica etc.

According to ayurveda there are *pancha lavanas* i.e *saindava* (rock salt), *samudra* (common salt), *saurvachala* (black salt), *beeda* (potassium salt) & *romak* (earthen salt). These together called as *lavana panchak*. *Saindava lavana* is obtained from Punjab mines while *samudra lavana* is prepared by evaporating sea water in sunrays. Each lavanas has there basic properties.

Arka lavana is one of the Ayurvedic preparations which contain *Arka patra* (Fresh leaves of *Calotropis procera*) and *Saindhava lavana* (Rock salt). *Arka* is included in the *upavishavarga* of Ayurveda. *Arka kshira* (latex) of the plant is considered as poisonous. *Arka* consists of dry leaves of *Calotropis procera* which is available throughout India. It is used in the preparation of *kshara sutra* (caustic thread) and in the effective management of *Arsha* (Piles) and *Bhagandara* (Fistula in ano). *Saindhava lavana* is one among the *panchalavanas* and it is considered as best among all the lavanas because of its unique qualities. It is named as *Saindhava lavana* as it is obtained from *Sindhu desa*. The term *Lavana* in Ayurveda refers to *Saindhava lavana* only. *Arka lavana* is mainly indicated in the management of *yakrit pliha rogas* (diseases of liver and spleen), *udara* (ascites) etc. It has different actions with different *anupanas* like *koshnajala* (luke warm water), *dadhi mastu* (curd supernatant)

Key Word : Arka lavana, Saindhava lavana, samudra lavana

Total No. of Ref. - (05)

Introduction

Ayurveda the science of life is as old as the very existence of living organism so that the means of survival was always a matter of question for them and will always be ayurveda is one of the most ancient system of life ,health and cure.

Ayurveda compound formulations are divided into two groups:

- 1) *Kastha aushadhi* (herbal) and
- 2) *Rasa aushadhi* (Herbo-mineral).

Predominantly plant drugs are used for preparation and mainly deal with *Bhaishjya Kalpana* So far as *Bhaishajya Kalpana* is concerned, it can not be correlated exactly with either pharmacy or any other single subject in the present modern science, but it may be looked upon as a cumulative form of pharmacy, pharmacognosy, pharmacology, materia medica etc.

So, Importance of this branch is very clear as - 1) applicability and 2) richness of quality abundance and utility in multi purpose are said to be the best qualities of a drug. Hence, *Bhaishjya* is kept in second position among the *Padachatustayama* (four quadtaples) because of it's great role in treatment. *Panchvidha Kasaya Kalpana* (*swarasa, Kalka, Kwatha, Hima & Fanta*) constitute the basic preparation of Ayurved *Bhaishjya Kalpana*. The basic processing techniques of *Bhaishjya Kalpana*. are elaborately explained in the *samhitas*. These have been derived from five *Kasaya yonis* except *lavana Rasa*. All *kalpanas* are mainly based on water contents or water soluble part.

Lavana kalpanas is one of the *kalpanas* of ayurveda due to the unique properties of *lavana*. In preparation of ayurvedic medicine in which the main ingredient is *lavanas* said to be *lavana kalpas* in general. But in many *choorna aaushadhis* i.e *hingvashtak choorna, bhaskar lavana* etc. *lavana* is the main ingredient but they all are not said to be *lavana kalpas* accordingly to ayurveda. So in preparation of *aaushadhis* in which *vanaspati dravya* and *lavana* are mixed and a *puta sanskar* is given are said to be *lavana kalpas*. *Narikela lavana, arka lavana* etc are the *lavana kalpanas*

Narikela lavana is herbo-mineral ayurvedic medicine prepared from *Narikela* (coconut) and *saindhava lavana*. In this a *pakva narikela* (matured coconut) is taken and a hole is made into it and coconut water is removed and *saindhava* filled in coconut from a hole and *matakapada* is done and then a *puta* is given. This medicine is described under *lavana kalpana*. It is used in hyperacidity, abdominal pain etc.

Arka lavana is one of the Ayurvedic preparations which contain *Arka patra* (Fresh leaves of *Calotropis procera*) and *Saindhava lavana* (Rock salt). *Arka* is included in the *upavishavarga* of Ayurveda. *Arka kshira* (latex) of the plant is considered as poisonous. *Arka* consists of dry leaves of *Calotropis procera* which is available throughout India. It is used in the preparation of *kshara sutra* (caustic thread) and in the effective management of *Arsha* (Piles) and *Bhagandara* (Fistula in ano). *Saindhava lavana* is one among the *panchalavanans* and it is considered as best among all the *lavanans* because of its unique qualities. It is

named as *Saindhava lavana* as it is obtained from *Sindhu desa*. The term *Lavana* in Ayurveda refers to *Saindhava lavana* only. *Arka lavana* is mainly indicated in the management of *yakrit pliha rogas* (diseases of liver and spleen), *udara* (ascites) etc. It has different actions with different *anupanas* like *koshnajala* (luke warm water), *dadhi mastu* (curd supernatant) etc.

According to ayurveda there are *pancha lavanas* i.e *saindava* (rock salt), *samudra* (common salt), *saurvachala* (black salt), *beeda* (potassium salt) & *romak* (earthen salt). These together called as *lavana panchak*. *Saindava lavana* is obtained from Punjab mines while *samudra lavana* is prepared by evaporating sea water in sunrays. Each lavanas has there basic properties.

So as to boost up this knowledge, attempting thesis work on-

NEED OF STUDY:-

No any previous work done on *arka lavana* using *saindhava vis-à-vis samudra*.

Arka lavana is useful in *yakrit pliha rogas* (diseases of liver and spleen), *udara* (ascites) etc.

So *Arka lavana* will be better combination for these *rogas*.

Also to evaluate composition of *Arka lavana*.

So present study is the first step is to analyze this combination prepared by two different *lavanas* i.e *saindhava vis-à-vis samudra*.

AIMS AND OBJECTIVES

Aim :-

TO STUDY COMPARATIVE PHARMACEUTICAL PREPARATION AND ANALYSIS OF ARKA LAVANA USING SAINDHAVA vis-à-vis SAMUDRA LAVANA.

Objective :-

- To study literature of *Lavana kalpana*.
- To compile classical references on *Arka Lavana*.
- To prepare *Arka Lavana* according to classical method mentioned in *Rasatarangini* i.e. *saindhava lavana*.
- To prepare *arka lavan* by using *samudra lavana*.
- To carry out analysis of *Arka lavana* prepared from *saindhava* & *samudra lavana*.
- To carry out comparative study of *arka lavana* prepared from *saindhava vis-à-vis samudra lavana*.

Review of literature :-

- Rasatarangini explain the preparation of *Arka Lavana* in 14th *adhyaya ksharavisheshadividnyaniyam*.
- Bhaishajya Ratnavali in 41th *adhyaya* explains *Arka Lavana* for plihyakrudrogadhikar chikitsa.
- Chakradatta in 37th *adhyaya* explains preparation of *Arka Lavana* for *udarrog chikitsa*.
- **Classical reference of Arka Lavana:**

सुचूर्णितं सैन्धवन्तु समार्कदलसंयुतम् ।
 अन्तर्धूमं पचेय्यधीमान् स्वाग्ङःशीतमथोद्धरेत् ॥ १३१ ॥
 जायते खल्वसमिष्टं लवणं कज्जलप्रभम् ।
 आयुर्वेदाचार्यवर्यैर्नाम्नार्कलवणं मतम् ॥ १३२ ॥ - रसतरङ्गिणी

Arka lavana is prepared by antardhum method processing with markavpatra and Saindhava, After that mixing (khalwa) till form comes like Kajjali

Previous work done :-

No any previous work was found of *Arka Lavana* that compares *saindhava* with *samudra lavana*.

Hypothesis :-

H_1 :- There is significant difference in *arka lavana* prepared by *saindhava* and *samudra lavana*.

H_0 :- There is no significant difference in *arka lavana* prepared by *saindhava* and *samudra lavana*.

Materials and Methods :**Materials :-**

1. Fresh *pakva Arka patra*.
2. *Saindhava lavana*.
3. *Sharav Samputa*.
4. *Multani mati*.
5. *Vastra(matkapad)*.
6. *Ran shenya* (cow dung cakes).
7. *Putra*.
8. *Khalva yantra*.
9. Glass bottle or air tight container for storage.
10. Water.
11. Utensils.
12. *Samudra lavana* (for preparing *Arka Lavana* with *samudra Lavana*).

Source of data :

Raw materials will be collected from reliable sources. Identity and quality will be assured by relevant classical and modern Physico-Chemical parameters. *Arka Lavana* samples will be prepared at Ashvin Rural Ayurved College Manchi Hill, sangamner.

Place of work:

Ashvin Rural Ayurved College, Manchi Hill, Tal -Sangamner, Dist- Ahmednager- 413714 (M.S)

Methods :-

The study of *Arka Lavana* will be carried out in following steps-

1. Collection of Arka Patra :

The fresh *pakva Arka patra* will be collected from reliable sources.

Identification and authentication of the raw material will be carried out.

3.Collection of lavanas :-

Saindhava & *samudra* will be collected from the available sources.

Identification and authentication of the raw material will be carried out.

4. Preparation of Arka Lavana :-

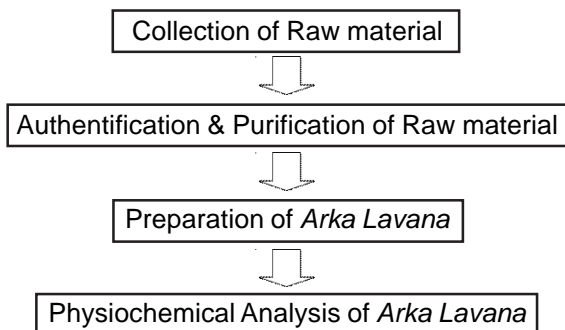
Equal quantity of *pakva Arka patra* and *Saindhava lavana* will be taken. *Saindhava lavana* powder will be made. The leaves of *Arka* and *Saindhava lavana* will be kept in alternative layers in *Sharava samputa* (earthen plate) and it will be sealed with *multani mati* and dried. Then it will be subjected to *Laghuputa* with cow dung cakes. The *Sharava samputa* will be taken out the next day, after cooling by itself. The final product will be collected and made in to fine powder in *khala*. Final product will be weighted.

In he same way *Arka Lavana* will be prepared by *Samudra lavana* instead of *saindhava* .

5. Number of a puta :-

According to pilot study a single *laghu puta* is sufficient.

But if required more *puta* can be done.

STUDY DESIGN :-

PILOT study :-**1. First day :-**

Fresh *pakva Arka patra* & *saindhava lavana* collected.

- *Arka patra* – 50 gms

- *Saindhava lavana* – 50 gms

Then *arka patra* & *saindav* was kept layerwise in *sharava samputa*.

Then *matakapad* was applied at *sandhibandha*. After each *matakapad* it was allowed to dried & then another *matakapad* was done. In this way 7 times *matakapad* was done.

2. Second day :-

This *sharava* was subjected to the *laghuputa*.

3. Third day :-

After self cooling *sharava* was removed & the prepare *Arka lavana* was collected.

Then this *arka lavana* was kept in *kharal* & fine powder was prepared & packed in a glass bottle.

Obserations :-

Varna- greyish black

Sparha- *mrudu,shlakshna*

Rupa- *churna swarup*

Rasa- *lavana*

Obtained matra :-

30 gms

In the same way *arka lavana* will be prepared by using *samudra lavana* in place of *saindhava*.

Assessment criteria :-**Pharmaceutical study :-**

Arka Lavana will be prepared as per the Standard Procedure, giving importance to the process validation and equipment validation. Changes occurring during the procedure, final yield, product characteristics etc. will be keenly Observed, Recorded, Analyzed and Compared.

Analytical study :-**1. Organoleptic characters-**

- *Sparsha* (Touch).
- *Rupa* (Colour).
- *Rasa* (Taste).
- *Gandha* (Odour).

2 . Physico-chemical analysis-

- pH Value.
- Loss on drying.
- Solubility in alcohol.
- Solubility in water.
- Ash value (Total & Acid insoluble).
- Sodium.
- Potassium.
- Iron.

3. Quantitative and Qualitative analysis -

- Thin layered chromatography (TLC) of raw material
- Partical size analysis.
- XRF.
- If study needed and time possible other tests will be conducted.

❖ **Does the study require any investigation or any intervention to be conducted on patient or other human or animals ?**

:- NO.

❖ **Has ethical clearance been obtained from your institution ?**

:- Yes.

Observation & Result :

Physicochemical and analytical finding will be observed and result will be drawn.

Statistical analysis :

The data collected after final assessment will be subjected to statistical analysis depending upon the various statistical parameter.

Discussion :

The results traversed during the study will be discussed in the light of existing classical and conventional knowledge base and information and conclusions drawn.

Conclusion :

Suitable conclusion will be drawn with respect to aims and objectives set in the study on the basis of observations recorded.

References :

1. Bhaishajya-Ratnawali, Prof. Siddhinandan Mishra, Chaukhamba Orientalis, Varanasi. 2003
2. Baghel M.S. "Reseaech in ayurveda" Baghel M.S. "Reseaech in ayurveda" 2nd edition 2005
3. Rastaringini, Vd.Kashinath Shastri. Motilal Banarasidas, Delhi 11th -2004
4. Rasratna Samucchaya, Vd.Ambikadatta Shastri, Chaukhamba Amarbharati prakashan, Varanasi. 9th -1995
5. Sharangdhar Samhita. Dr.Brahmanand Tripathi, Chaukhamba Surbharati, Varanasi. Reprint-2004

Physico-Chemical Analysis of Vrushaddhya Ghrita



Amol Abhale

Experiment :

Physico-Chemical Analysis of Vrushaddhya Ghrita

Scholar - Amol Thakaji Abhale

MB.NO.-9766479709 E-Mail- amolabhale1111@gmail.com

Guide - Vd. Manoj kulkarni, M.D. (Rasashastra & B.K)

(READER. in P.G. Dept. of Rasashastra & Bhaishjya kalpana.)

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Abstract :

In Ayurveda krimi is a broad term used for all microbes including bacteria , fungi and viruses. In present time bacterial infections are treated with antibiotics which have many side effects more over bacteria are developing resistance. Many Ghrita formulations are explained in the text which is effectively used in various infectious disease as at topical application. Among them Vrushaddhya Ghrit is unique formulation which needed more exploration regarding their therapeutic importance in bacterial infections. Considering the above view present study will be carried out to understand a safer, potent and economic antibacterial formulation of Vrushaddhya Ghrita with modern parameters.

Staphylococcus aureus and Sterptococcus pyogens are common bacterias which causes skin disorders. So, to be updated with this situation Snehapak kalpana play a very important role to cure the skin diseases. Even though there are hundreds of Ghrita formulations explained in classical text, their physical and chemical properties, standardization etc. are still to be understood. So as to boost up this knowledge, attempting thesis work on-

Key Word – Staphylococcus, Sterptococcus, Vrushaddhya Ghrita**Total No. Of Ref.** - 05**INTRODUCTION :**

AYURVEDA, the science of life is as old as the very existence of living organism so that the means of survival was always a matter of question for them and will always be ayurveda is one of the most ancient system of life ,health and cure.

Rasashastra is a branch of learning pharmaco-therapeutics which mainly deals with the therapeutics usage and processing methodologies of minerals,metals,precious stone,herbs, certain poisonous herbs, and drugs from animal origin.

Rasachikitsa is the therapy among other due to quicker recovery from diseases and effective in even very small doses. In present era Ayurvedic physicians profusely use minerals, metals, germs, and some of animals as well as vegetable products.

Ayurveda compound formulation are divided into two groups. 1)Kasthaaushadhi(Herbs) 2)Rasa aushadhi(Herbo-minerals). Predominantly plant drugs are used for preparation and mainly deals with Bhaishajya Kalpana. So, far as Bhaishajya Kalpana is concerned, it can not be correlated exactly with either pharmacy or any other single subject in present modern science, but it may be looked upon as a cumulative form of pharmacy, pharmacognosy, pharmacology, material media etc. So, Importance of this branch is very clear as- 1)applicability and 2)richness of quality, abundance and utility in multi purpose are said to be the best qualities of a drugs Hence, Bhaishajya is kept in second position among the Padachatustayama(four quadrants), because of its great role treatment PanchvidhaKasayaKalpana (swarasa, kalka, Kwath, Hima, and Fanta)constitute the basics preparation of Ayurved Bhaishajya Kalpana. The basic processing techniques of Bhaishajya Kalpana are elaborately explained in the samhitas. These have been derived from five Kasaya yonis expect lavana Rasa. All kalpana are mainly based upon water contents or water soluble part. There are also upkalpana mentioned such as shirpak kalpana, snehapak kalpana etc.Present study is the preparation of Ghrita which comes under sneha kalpa.Ghrita are preparation on which Ghrita is boiled with prescribed liquid media (Swarasa etc.)and fine paste (kalka) of the drugs specified in formulation composition. The medicated Ghrita will have the odour, Colour and taste of the drugs used in the process.

Need of Present study :-

In Ayurveda krimi is a broad term used for all microbes including bacteria , fungi and viruses. In present time bacterial infections are treated with antibiotics which have many side effects more over bacteria are developing resistance. Many Ghrita formulations are explained in the text which is effectively used in various infectious disease as at topical application. Among them Vrushaddhya Ghrita is unique formulation which needed more exploration regarding their therapeutic importance in bacterial infections. Considering the above view present study will be carried out to understand a safer, potent and economic antibacterial formulation of Vrushaddhya Ghrita with modern parameters.

Staphylococcus aureus and Sterptococcus pyogens are common bacterias which causes skin disorders. So, to be updated with this situation Snehapak kalpana play a very important role to cure the skin diseases. Even though there are hundreds of Ghrita formulations explained in classical text, their physical and chemical properties, standardization etc. are still to be understood.So as to boost up this knowledge, attempting thesis work on-

“Pharmaceutico-Analytical Study of Vrushaddhya Ghrita with its Antimicrobial Activity”.

Here an attempt is being made to correlate Vrushaddhya Ghrita with these micro-organisms.

Although many studies have already been conducted about the formulations indicated for skin diseases ,there are still many more preparations to be studied. Amongst them one is the vrushaddhya ghrita of which antimicrobial activity has not been carried out yet and hence an attempt is made to evaluate.

AIMS AND OBJECTIVES**1) AIM:-**

“TO STUDY PHARMACEUTICO-ANALYTICAL STUDY OF VRUSHADDHYA GHRITA WITH IT’S ANTIMICROBIAL ACTIVITY”

2) OBJECTIVES :-

- 1) To Prepare Ghrita Murchana.
- 2) To prepare vrushaddhya ghrita as per classical reference [chakradatta 53/34]
- 3) To analyse vrushaddhya ghrita using physical and chemical analytical parameters
- 4) To study antimicrobial activity in agar media.

REVIEW OF LITERATURE :-

Detail information will be collected from various *Ayurvedic Samhita*, modern texts. Journals & research paper & scientific networks. (Literary research).

References of vrushaddhya ghrita in other samhitas -

1. *Chakradatta*
2. *Bhaishajya Ratnavali*:

PREVIOUS WORK DONE;

No work is done on Vrushaddhya ghrita.

MATERIAL AND METHODS :-

Identification & Authentication of drug will be done in Rasashastra & BK,

Dravyaguna Dept. and research unit Department in Ashvin Rural Ayurved College & Hospital, Manchi Hill, Sangamner with reference Ayurvedic Pharmacopeia as well as from other pharmacy if required.

1. Literary data will be collected from Vedic scriptures, Ayurvedic text books, Articles published in reputed journals, Retrospective studies conducted in relation to the study, Modern literature if any and Internet.

2. Raw materials will be collected from the genuine sources like Pharmacies, Chemical stores, Market, etc.

3. MATERIAL :

REF. CHARAK SAMHITA CHIKITSA STANA 2/36,56

INGREDIENTS for Murchana OF Ghrita;

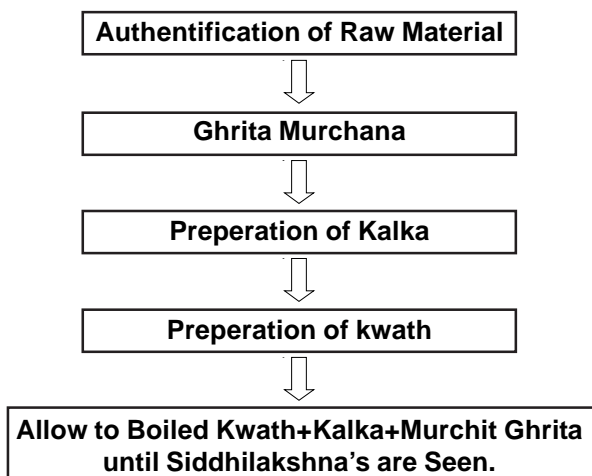
Trifala, Nagarmotha, Haridra, Mahalunga, Swaras, Water, ghrita

INGREDIENTS for Vrushaddhya Ghrita

- Vasamul
- Khadhirkasta
- Patolpatra
- Nimbatwak
- Guduchi
- Amalaki
- Goghrita

For Antimicrobial Study: –

- ✍ Staphylococcus aureus
- ✍ Streptococcus pyogens
- ✍ Nutrient agar
- ✍ Petri dish
- ✍ Incubator
- ✍ Burner
- ✍ Sterilize filter paper
- ✍ Other material needed during antimicrobial activity.

Collection of Raw Material**METHODS :-**

No. of sample to prepare –**1 sample to be prepared according to classical reference of chakradatta.****Antimicrobial method –**

The test will be performed by making well of specific diameter of 6 mm onto the surface of the pre-sterilized agar plated over in which the culture of microorganism (Staphylococcus aureus and Streptococcus pyogens will inoculated (well diffusion assay).

After 24 hrs of incubation the size of a clear zone of inhibition around the well assessed for the antimicrobial activity of the sample against the strains.

Vrushaddhya Ghrita is prepared as per classical ayurvedic text reference . One gram positive bacteria from staphylococci is staphylococcus aureus and other gram positive from streptococci is streptococcus pyogens are taken to study the antimicrobial activity of Vrushaddhya Ghrita.

The action of Vrushaddhya Ghrita and its antimicrobial property will be tested in the department of Microbiology.

The samples will be cultured on muller –Hilton agar to get the growth of micro-organisms.

The compound will be tested against the microorganism in test plates .The inhibition concentration of Vrushaddhya Ghrita will be detected against staphylococcus aureus and streptococcus pyogens

PILOT STUDY :-

I had made pilot study of virushaddhya ghrita.

I Abhale Amol Thakaji prepared Vrushaddhya Ghrita in our Rasashastra & B.K Dept.

First Day :-

1- Ghrita Murchana was done by following procedure:-

Kalka (made by Amalaki, Haritaki, Bibhitak, Haridra, Nagarmotha each 4gm mixed with matulunga swaras 5ml)

Ghrita :- Goghrita 100 ml

Water:-400ml A/c to 1:4:16. Sneha Kalpana.

Ghrita+Kalka+Water $\xrightarrow{\text{Mandagni}}$ Till the Siddhilakshana's was seen.

Sneha Siddhi Lakshana:- When Sneha Kalka Was Pressed Between Fingers, Varti was be formed.

When kalka was put over fire, no sound is heard.

Second Day :-

80 ml Murchit Ghrita was Obtained.

Third Day:-

Kwath of Vrushaddhya Ghrita Ingredients (Vasamul, Khadirkasta, Patolpatra, Nimbatwak, Guduchi, Amalaki 3.5 gm of each + 320ml of water)

Kalka of Vrushaddhya Ghrita Ingredients (Vasamul, Khadirkasta, Patolpatra, Nimbatwak, Guduchi, Amalaki 3.5 gm of each)

Murchit Ghrit :- 80ml

MurchitGhrit + Kalka + Kwath  Till the Siddhilakshana's seen.

Sneha Siddhi Lakshana:- When Sneha Kalka Was Pressed Between Fingers, Varti was be formed.

When kalka was put over fire, no sound is heard.

70 ml Vrushaddhya Ghrita was Obtained.

Plan of study :-

1. Literature - Drug review.

2. Pharmaceutical study -

a) Purification of raw material.

b) Analysis of raw material.

3. Analytical study :-

3.1 Organoleptic character -

a. Rupa

b. Gandha

c. Rasa

d. Sparsh

3.2 Physicochemical parameters -

a. Refractive index.

b. Specific gravity.

c. pH value.

d. Acid value.

e. Saponification value.

f. Iodine value.

3.3 If needed other physicochemical and analytical study will be done.**Type of study - :**

- 1) Pharmaceutical and Analytical study.
- 2) Antimicrobial study.

STATISTICAL METHODOLOGY :-

The collected data will be properly analyzed by using appropriate statistical tests.

References :

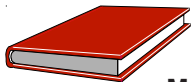
1. Bhaishajya-Ratnawali, Prof. Siddhinandan Mishra,Chaukhamba Orientalis, Varanasi.2003
2. Baghel M.S. "Reseaech in ayurveda" Baghel M.S. "Reseaech in ayurveda" 2nd edition 2005
3. Rastaringini, Vd.Kashinath Shastri. Motilal Banarasidas,Delhi 11th - 2004
4. Rasratna Samucchaya, Vd.Ambikadatta Shastri, Chaukhamba Amarbharati prakashan,Varanasi. 9th -1995
5. Sharangdhar Samhita. Dr.Brahmanand Tripathi, Chaukhamba Surbharati,Varanasi. Reprint - 2004

Pharmaceutico Analytical Study of Shankhadyanjana with special reference to Bhaishajya Ratnavali



Gaurav Mahale

**Experiment : Pharmaceutical Analytical Study of
Shankhadyanjana with special reference to
Bhaishajya Ratnavali**



Scholar - Vd. Gaurav V. Mahale

Mob.No. - 9970605575 Email- mahale.gaurav54@gmail.com

Guide - Vd. Manoj kulkarni, M.D. (Rasashastra & B.K)

(Reader in P. G. Dept. of Rasashastra & Bhaishajya kalpana.)

Arac.Manchi Hill, Ashvi Bk,Tal – Sangamner, Dist – Ahmednagar 413714

Abstract :

Rasashashtra is the branch of Ayurveda where preparation of medicine with raw herbal and mineral materials are mentioned.

In the materials of mineral raw materials they had mentioned things like metals, sudha vargas various gems.

Shankhadyanjana is a Herbo-Mineral preparation explained in Bhaishajya Ratnavali for netrarog.

Although many studies have already been conducted about the formulations indicated for netrarog ,there are still many more preparations to be studied. Amongst them one is the Shankhadyanjana of which Physiochemical analysis has not been carried out yet and hence an attempt is made to evaluate the preparation and study its physio-chemical characteristics. This study is planned to develop in house standards after preparing the product by adhering to Standard Operative procedure and analyzing the sample of Shankhadyanjana with specific relevant Physico-chemical parameters.

Key Word : Herbo-mineral Netra rog, Shankhadyanjan,

Total No. Of Ref. - 05

INTRODUCTION :

Ayurveda is the supreme science which deals with health, diseases, and their management by using herbal, mineral, and animal originated drugs. Ayurveda advocates use of herbs and herbal preparations for the treatment of various ailments. But interestingly, the use of Herbo-mineral preparations for different ailments in the form of Bhasmas or Rasa preparations is one of the unique features of Rasashastra. Rasashastra being a branch of Ayurveda describes various minerals, metals, uses along with the procedures required to transform them into therapeutically fit medicines.

These Rasa-aushadhis are said to be the best among the types of Bhaishajas because of their qualities like alpamatraprayoga, kshipraarogyadayitwa etc. due to their chemical nature.

Rasa Shastra was developed with the usage of toxic materials for therapeutic purposes, because of which many specialized techniques like Shodhana, Marana, Amriteekarana etc. were invented to minimize their toxicity and to suit the therapeutic purpose. Now a days, Ayurvedic in general and Rasashastra in particular have been under an intense scrutiny for safety profiles eventhough they are committed safe otherwise if properly processed.

In this century our day to day life has turned to be very fast as a result of which people don't have much time to look after their own health. As a result of changing life style, many health issues especially netrarog have become common and

alarming. So, to be updated with this situation 'Rasaushadhis' play a very important role to cure the diseases and to maintain health, being on the safer side without side effects. Even though there are hundreds of herbo-mineral preparations explained in classics, their physical and chemical properties, standardization etc. are still to be understood.

So as to boost up this knowledge, attempting thesis work on

Shankhadyanjana is a Herbo-Mineral preparation explained in Bhaishajya Ratnavali for netrarog.

Although many studies have already been conducted about the formulations indicated for netrarog ,there are still many more preparations to be studied. Amongst them one is the Shankhadyanjana of which Physiochemical analysis has not been carried out yet and hence an attempt is made to evaluate the preparation and study its physio-chemical characteristics. This study is planned to develop in house standards after preparing the product by adhering to Standard Operative procedure and analyzing the sample of Shankhadyanjana with specific relevant Physico-chemical parameters.

Need of Study :-

As far as Shankhadyanjan is concerned till date no research work had been done.

It is best combination for Avranasukra, Timir, Arbud.

AIMS AND OBJECTIVES :

1) AIM :- "PHARMACEUTICO ANALYTICAL STUDY OF SHANKHADYANJANA W.S.R TO BHAISHAJYA RATNAVALI"

2) OBJECTIVES :-

- 1. To Perform shodhana of mansheela**
- 2. To shodhana and marana of Shankha**
3. To preparation of shankhadyanjana
4. To analyze the sample with standardization test.

REVIEW OF LITERATURE :-

Detail information will be collected from various Ayurvedic Samhita, modern texts. Journals & research paper & scientific networks.(Literary research).

References of Shankhadyanjanain other samhitas-

1. Chakardatta
2. Bhaishajya Ratnavali:

PREVIOUS WORK DONE;

No work is done on shankhadyanjana w.s.r to Bhaishajya Ratnavali.

MATERIAL AND METHODS :-

1. Identification & Authentification of drug will be done in Rasashastra &BK, Dravyaguna Dept and research unit Department in Ashvin Rural Ayurved College & Hospital, Manchi Hill, Sangamner with reference Ayurvedic Pharmacopeia as well as from other pharmacy if required.
2. Literary data will be collected from Vedic scriptures, Ayurvedic text books, Articles published in reputed journals, Retrospective studies conducted in relation to the study, Modern literature if any and Internet.
3. Raw materials will be collected from the genuine sources like Pharmacies, Chemical stores, Market, etc.

In Bhaishajya Ratnavali :-

शंखाद्यञ्जन

शंखस्यभागाश्चत्वारस्ततोद्ध्रेनमनःशिला ।

मनःशिलाद्ध्रेमरिचंमरिचाद्ध्रेनसैन्धवम् ।।

एतच्चूर्णाञ्जनंश्रेष्ठं शुक्रयोस्तिमिरेषुच ।

पिच्विटेमधुनायोज्यमर्बुदेमस्तुनातथा ।।

भै. र. नेत्ररोगाधिकार ६४/७८-७९

MATERIAL :-**INGREDIENTS :-**

- | | |
|--------------------|----------|
| · Shankha Bhasma | - 4 Part |
| · Shudha Mansheela | - 2 Part |
| · Marich churna | - 1 Part |
| · Saindhav lavana | - ½ Part |

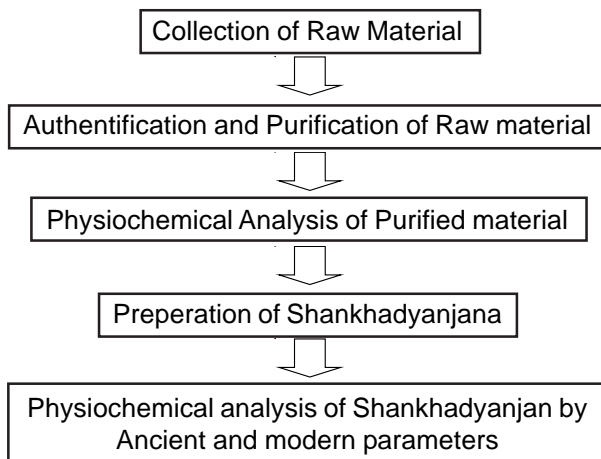
Methods :-**Source of data :**

Raw materials will be collected from reliable sources and preparation of formulations will be carried out in the Dept. of Rasashastra and Bhaishajya Kalpana of our institute, at manchi hill

- Identification and Authentification of drug will done in Dravyaguna department of our Institute with reference with Ayurvedic Pharmacopeia.

Place of work : Ashvin Rural Ayurved College & Hospital Manchi hill

Collection of literature from various Ayurvedic Samhita.modern texts . Journals & research paper & scientific networks.(Literary research).

Study design :-**PILOT STUDY :-**

I had made pilot study of Shankhadyanjan.

I Gaurav V. Mahale prepare Shankhadyanjan in our Rasashastra & and BK Dept.

Material :-**INGREDIENTS :**

- Shankha - 90gm
- Mansheela - 30gm
- Marich - 20gm
- Saindhav lavana - 15gm

Procedure :-**1 - Shodhana of Manasheela :-**

Manasheela was purified by giving 7 Bhavanas of Adraka swarasa (a/c to Rasatarangini 11/114)

After Shodhana 25gm of suddha manasheela was obtained.

2 - Shodhana & Marana of Shankha:-

1) Small pieces of shankha are bundled in a piece of cloth Swedana in Dolayantra Nimbu Swarasa was given for 3 Hours. (a/c to Rasatarangani 12/6-7)

2) Shodhit Sankha was placed in Sarava samputa sandhi lepa was done and dried then Gajaputa was given. This process was repeated twicely. (a/c to Rasatarangani 12/16-18)

After Shodhana & Marana 65gm of Shankha Bhasma was obtained.

Shankhanjan was prepared by mixing the combination of —

Shankha bhasma - 60gm

Shuddha Mansheela - 30gm

Marich churna -15gm

Saindhav - 7.5gm.

Plan of Study:-

1. Literature - Drug review

2. Pharmaceutical study -

a) Purification of raw material.

b) Analysis of raw material.

Analytical study –**4.1 Bhasmapariksha as per classical refrance**

a. Rekhapooratva

b. Varitarava

c. Nishabhdhata

d. Nirdhumata

4.2 Organoleptic character -

a. Rupa

b. Gandha

c. Rasa

d. Sparsha

3.1 PHYSICO-CHEMICAL ANALYSIS :

1. Ph value
2. XRF
3. Ash value
4. TLC
5. Pratical size
6. Loss of dryness

3.2 If needed other physicochemical and analytical study will be done.

TYPE OF STUDY :**PHARMACEUTICO ANALYTICAL STUDY OF SHANKHADYANJANA.****OBSERVATION & RESULT :-**

Physicochemical and analytical finding will be observed and result will be drawn.

STATISTICAL METHODOLOGY :-

The collected data will be properly analyzed by using appropriate statistical tests.

References :

1. Bhaishajya-Ratnawali, Prof. Siddhinandan Mishra,Chaukhamba Orientalis, Varanasi.2003
2. Baghel M.S. "Reseaech in ayurveda" Baghel M.S. "Reseaech in ayurveda"2nd edition2005
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4. Rasratna Samucchaya, Vd. Ambikadatta Shastri, Chaukhamba Amarbharati prakashan,Varanasi. 9th -1995
5. Sharangdhar Samhita. Dr. Brahmanand Tripathi, Chaukhamba Surbharati,Varanasi. Reprint - 2004

A Clinical Study to Evaluate The Efficacy of Mustadi Kwatha in The Management of Vatarakta With Special Reference To Gout



Swapnil Patil

Clinical :

A Clinical Study to Evaluate The Efficacy of Mustadi Kwatha in The Management of Vatarakta With Special Reference To Gout

P. G. Scholar - Vd. Patil Swapnil Gopichand

Mb.No. 9890852998 Email- dr.swapnil.78@gmail.com

Guide - Dr. Anil Narayan Pansambal, BAMS, MD {Kayachikitsa}

Reader, Kayachikitsa dept. Shri Vivekanand Nursing Home Trust's

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Mb.No. 9922176062

Abstract :

Vatarakta is a joint related disease becoming a huge problem for world. According to ayurveda, it mainly includes small joints having dushti of vata and rakta. Modern view shows that it is a purine metabolism disorder in which acute attack of joint pain starting from big toe occurs due to pathological reaction of the joint or periarticular tissue to the presence of monosodium urate monohydrate (MSU) crystals.

The Serum uric acid levels are higher in men than women, they rise from age of 20 in men and after menopause in women.

In Bhavprakash Samhita, Mustadi kwatha is mentioned on vatarakta

Key Word Monosodium urate monohydrate Purine metabolism , Vatarakta ,

Total No. Of Ref. - 13

1. INTRODUCTION :

Vatarakta is a joint related disease becoming a huge problem for world. According to ayurveda, it mainly includes small joints having dushti of vata and rakta. Modern view shows that it is a purine metabolism disorder in which acute attack of joint pain starting from big toe occurs due to pathological reaction of the joint or periarticular tissue to the presence of monosodium urate monohydrate (MSU) crystals.

(1) The prevalence of gout varies between populations, but is approx.1-2% with a strong male predominance i.e.5:1 .It is most common inflammatory arthritis in men and in older women. Prevalence increases with increasing serum uric acid level (SUA) and with age. The incidence of and prevalence of gout have increased in many countries in recent decades, in parallel with increased longevity and higher prevalence of metabolic syndrome, of which hyperuriceamia is an integral component .

The Serum uric acid levels are higher in men than women, they rise from age of 20 in men and after menopause in women.

Vatarakta can be correlated to gout. So there must be a treatment for vatarakta in preventive and curative manner. So at first try to avoid causes and if there after vatarakta occurs it

should be treated, but there is no perfect treatment rather than NSAID (Non Steroidal Anti Inflammatory Drugs), colchicine, xanthine oxidase inhibitor i.e. Allopurinol in allopathy.

1.1 SELECTION OF TOPIC :

In Bhavprakash Samhita, Mustadi kwatha is mentioned on vatarakta which contains Mustaka, Amalki, nisha(Haridra) having Aampachan, dipan, vatanuloman, Raktaprasadana, Tridosh Shamak etc. properties so it will give good result in vatarakta.

Kwatha kalpana mentioned by Sharangdhara is easy to made and if fresh kwatha is taken so it can give good result in treatment than guti-vati and other kalpanas.

So, keeping all these points and ayurvedic concepts in mind after discussion with my guide study has been decided to evaluate the efficacy of Mustadi kwatha in the management of vatarakta with special reference to gout.

2. PREVIOUS WORK DONE :-

1. 2000 Role of Jalaukavcharana in aamvata / sandhivata and vatarakta.
2. 2007-08 Comparative study of Vasadi Kwatha and kaishore guggulu in vatarakta w.s.r. to gout.
3. 2009-10 A comparative study of Patoladi kashaya and Kaishore guggulu in the management of uttan vatarakta.
4. 2010-11 Study the effect of Navakarshik kwatha Ghana vati in the management of vatarakta.
5. 2011-12 Comparative clinical evaluation of Kokiladi kwatha with Allopurinol in vatarakta with special reference to gout.
6. 2012-13 To study the effect of Kokilakshadi kwatha in management of vatarakta w.s.r. to gout.
7. 2014-15 A clinical study to evaluate the efficacy of Shampakadi kwatha in the management of vatarakta w.s.r. to gout.
8. 2014-15 A clinical study to evaluate the efficacy of Guduchyadi lauham in comparison with Guduchyadi lauham and panda tail in the management of vataj vatarakta.

Previously the efficacy of Mustadi kwatha was never compared in the management of vatarakta with special reference to gout.

3. HYPOTHESIS-

3.1 RESEARCH QUESTION -

Does the management with Mustadi kwatha is more effective in vatarakta than the treatment with Tab.Piroxicam with special reference to gout?

3.2 DEPENDENT VARIABLE -

1. Kandu (Itching)
2. Sandhi Daha (Burning sensation).
3. Sandhi Ruja (Pain)
4. Sandhi Toda (Pricking pain)
5. Sandhi Sphurana (Trembling or throbbing sensation)
6. Gaurava (Heaviness)
7. Serum uric acid level (SUA)

3.3 INDEPENDENT VARIABLES-

- A) Mustadi kwatha
- B) Tab.Piroxicam 20 mg DT

3.4 EXTANEOUS VARIABLES-**NULL HYPOTHESIS (H_0)-**

There is no difference between efficacy of Mustadi kwatha and Tab.Piroxicam 20 mg in the management of vatarakta with special reference to gout.

ALTERNATIVE HYPOTHESIS (H_R)-

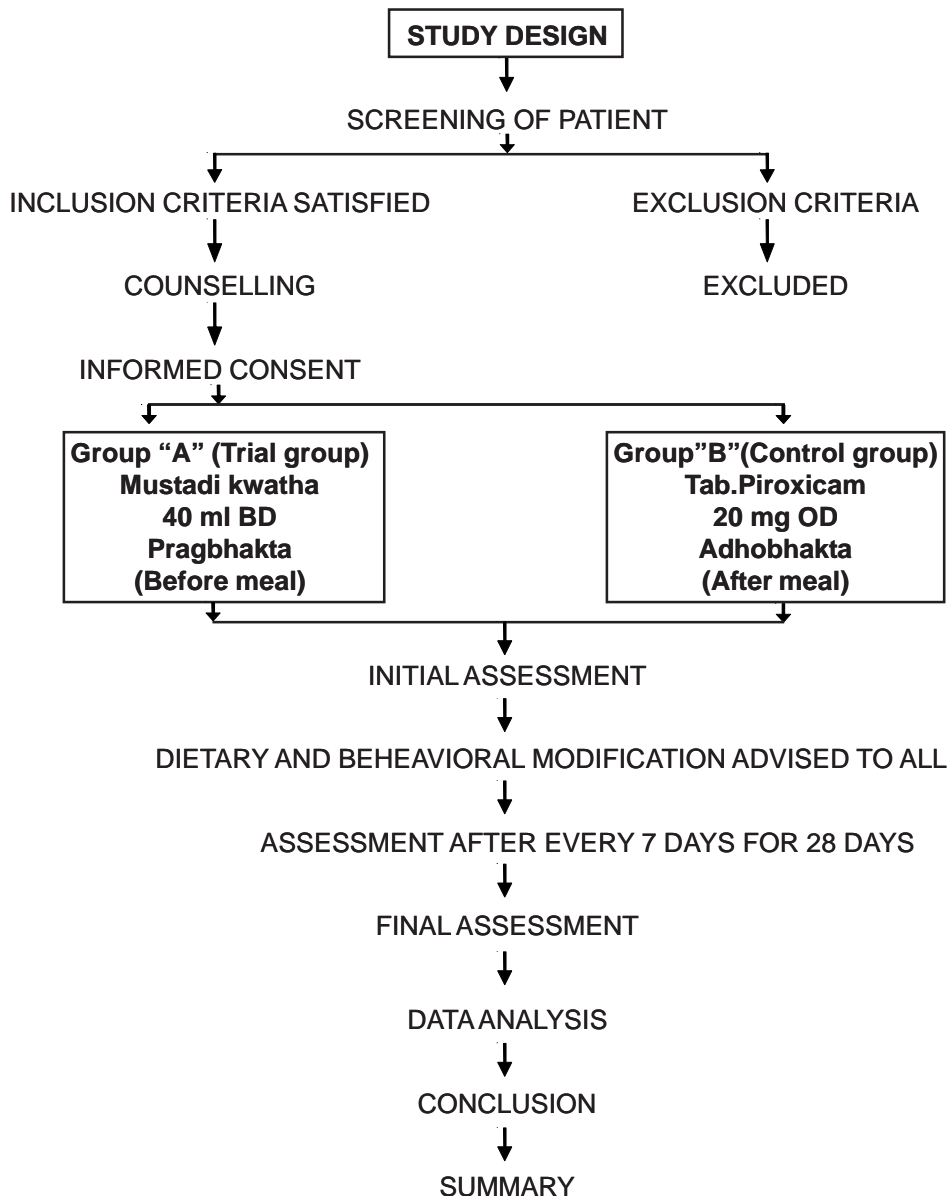
Mustadi kwatha is more effective than Tab.Piroxicam 20 mg in the management of vatarakta with special reference to gout.

4. AIMS AND OBJECTIVE –**4.1 AIM-**

“A clinical study to evaluate the efficacy of mustadi kwatha in the management of vatarakta with special reference to gout.”

4.2 OBJECTIVES-

- 1) To study Vatarakta in detail.
- 2) To study Gout in detail.
- 3) To study properties of Mustadi Kwatha.
- 4) To evaluate efficacy of Mustadi Kwatha in Vatarakta .

5. STUDY DESIGN & SAMPLE SIZE -

Prevalence Rate -

The prevalence of Gout varies between populations, but it is approximately 1-2% with strong male predominance, i.e. 5:1

(Davidsons Principles and practices of medicine, Brian R. Walker, Churchill livingstone. 22nd edition, 2014, Page no-1087)

5.2 SAMPLE SIZE CALCULATION – (2)

Formula -

$$n = \frac{Z^2 P(1-P)}{d^2}$$

Where-

Z=1.96 Statistical level of significance

P= Prevalence of disease=2%=0.02

d= Allowable error -5% hence 0.05

$$n = \frac{(1.96)^2 \times 0.02(1-0.02)}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.02 \times 0.98}{0.0025}$$

$$n = \frac{0.07529}{0.0025}$$

$$n = 30.12$$

so sample size n = 30

It is a clinical study which will be carried out in 60 patients. Patients will be divided in two equal groups named Group A (Trial Group) & Group B (Control Group). Total duration of study is 28 days. Patients will be selected by simple random sampling method.

6. MATERIAL AND METHODS-**6.1 CONCEPTUAL STUDY-****DISEASE REVIEW –**

Sushruta had described vatarakta in Vatavyadhi prakarana,

Charaka, Vagbhata, Madhavnidan described Vatarakta Independently.

SYNONYMS -

1. AADHYAVATA- The disease which affects the people with comfort & royalty & secondly as it is difficult to cure.

2. KHUDHAVATA- The disease in which is most commonly seen in khuda desha i.e, near the ankle or in smaller joints.
3. VATABALASAKA-In this rakta get infected due to covering of vata.so it is called as Vatabalas.
4. VATASHONITA- Faulty vata & rakta.
Other synonyms are ADHYA MARUTA, ADHYA PAVANA

TYPES OF VATARAKTA

According to Charakacharya vatarakta is of two types -

(13)उत्तानमथ गम्भीरं द्विविधं तत् प्रचक्षते ।

त्वकमांसाश्रयमुत्तानं गम्भीरं त्वन्तराश्रयम् ।। च. चि. २९/१९

- 1) Uttan vatarakta-It is limited to Skin & Muscle (Mansa)
- 2) Gambhira Vatarakta- It is limited to joints.

According to Dosha following are types of vatarakta

1. Vataj
2. Pittaj
3. Kaphaj
4. Raktaj
5. Vata Pittaj
6. Vata Kaphaj
7. Kapha Pittaj
8. Sannipataj

HETU -

According to Charakacharya delicate people who takes Viruddha Ahar (Cocktail Food) & faulty or wrong vihar.

Those people who used to eat streat food, dry food , fish product, annup meat, salty, sour, pungent, alkaline, fat containing food material ,alternate cold and hot food frequently could cause Prakopa of vata and rakta.

Also those people who take alcohol ,viruhha ahar, day time sleep, late night awake habbit and who belongs to ceamy layer of socity could easily cause Prakopa of Vata and Rakta.

SAMPRAPTI-

(4)वायुर्विवृद्धोवृद्धेनरक्तेनावरितःपथि ।

कृत्सनंसंदुषयेद्रक्तं तद्भ्येयं वातशोणितम् ।

खुडं वातबलासाख्यमाढयवातंचनामभिः ।। च. चि. २९/१०

Due to the etiological factors like intake of diet consisting of salty, sour, pungent, alkaline, fatty, hot and uncooked articles, nishpava, sugar cane, sura, asava, eating during indigestion, day sleep, Vigils mostly in delicate person who eat delicious things at pleasure and pre not in habit of walking vatarakta aggravates. Due to external injury, journey on carts carried by horses and camels, sporting in water ,jumping, excessive travelling on foot in hot season, sexual intercourse and suppression of urges, the aggravated vata having been obstructed in its passage by aggravated blood affects the entire blood. This is known as vatashonita having synonyms as khuda, vatabalasa and Adhyavata.

SAMPRAPTI GHATAK -

Dosha - Vata&Rakta

Dushya - Rakta,twak,mansa

Adhithana - Twak, mansa,

Strotas - Ras,rakta,mansa,asthi

Agni - Vishamagni

Vyadhiswabhav - Darun

Marga - Madhya marga

Swabhav - Darun

DRUG REVIEW –

Drug Name -1.Mustadi Kwatha (Group A)

2.Tab.Piroxicam 20 mg (Group B)

1. MUSTADI KWATHA –(Trial Group A)

⁽⁶⁾मुस्तामलकनिशाभिःक्वथितंतोयंसमाक्षिकंपेयम् ।

जयतिसदागतिरक्तंसकफंवासततयोगेन् ।

भा. प्र. म. खं. वातरक्त २९/७८

MUSTADI KWATHA MODE OF ACTION -

Drug name ^{(7) (8)}	Latin name, Family	Rasa	Vipaka	Virya	Guna	Doshakarma	Karma
Mustak	Cyperus rotundus (Cyperaceae)	Tikta, Katu Kashya	Katu	Sheeta	Laghu Ruksha	Kapha Pitta Shamak	Dipan Pachan, Sangrahak, Rakta Prasadan
Aamalki	Emblica officinalis (Ephorbiaceae)	Lavan rahita Panchras Mainly Aamla	Madhur	Sheeta	Laghu, Ruksha	Tridoshgna (pitta shamak)	Daha prashamana, Dipan Pachan, Rochan, Anulomar
Haridra (Nisha)	Curcuma longa (Zingiberaceae)	TiktaKatu	Katu	Uashna	Laghu, Ruksha	Kapha-Pitta Vata Shamak Pitta rechaka Pitta shamak	Pittarechan, Vedna shapar Rakta prasadan

In Bhav Prakash Samhita various kalpas on vatarakta in 28th adhayay of madhya khand mentioned, Mustadi kwatha is one of them. The contents of mustadi kwatha are Mustaka, Amalki, Haridra which has dipan, pachan, rakta prasadan, anuloman, dahaprashaman, vedanasthapan, shothahar, etc. properties.

All ingredients in this kalpa are tikta, katu, madhur, amla, kashaya and except lavan rasatmak, katu-madhur vipaki, mainly sheeta-ushna viryatmak and All three drugs having mainly laghu-ruksha gunas . Due to these properties it causes tridosha shamana , aampachan, rakta prasadana and gives relief from disease.

6.2 PHARMACEUTICAL STUDY -

PREPARATION OF DRUG -

METHOD OF KWATHA PREPARATION -

(10) पानीयं षोडशगुण क्षुण्णेद्रव्येपलेक्षिपेत् ।

मृत्पात्रं क्वाथयेद् ग्राह्यमष्टमाशावशेषितम् ।।

तज्जलं पाययेद्धीमान्कोष्णं मृद्ग्निसाधितम् ।

शा. सं. म. २/९

Sr. No	Contents	Quantity
1	Mustaka	1 Part
2	Amalaki	1 Part
3	Haridra(Nisha)	1 Part
4	Water	16 Part

The well identified drugs will be selected and cleaned well. The above ingredient No.1 to No.3 will be taken in equal parts i.e. 1 part each (1Tola) then 16 Part Water of total ingredient will be taken, mixed and will be heated on gas up to 1/8th part of water will remained in pot and then prepared Kwatha will be stored in a air tight container.

2. Tab. Piroxicam 20 mg - (Control Group-B)

Sr.No.	Content	Quantity
1	Piroxicam	20 mg

Preparation of Drug -

Already prepared drug is taken from CIPLA Pharmaceuticals Ltd.

i.e. Tab. Dolocip 20 mg DT

6.3 ANALYTICAL STUDY –**DRUG STANDARDIZATION -**

It will be done at recognised pharmacy after preparation of drug before the clinical trials conducted.

6.4 CLINICAL STUDY -**A. INCLUSION CRITERIA -**

- 1) Patient willing for treatment with prior consent .
- 2) Patient between age 20-60 years.
- 3) Sex- male & Female
- 4) Patient with signs and symptoms of vatarakta.
- 5) Newly diagnosed patient of vatarakta will be included .

B. EXCLUSION CRITERIA -

- 1) Joint deformity due to Gout, Rheumatoid arthritis, Osteoarthritis etc.
- 2) Patient with disease like Diabetes mellitus, Asthma, T.B, Carcinoma, Renal failure, HIV, Cardiac patients, Rheumatoid arthritis, osteoarthritis etc.
- 3) Patients below 20 and above 60 years.
- 4) Gambhir avastha of vatarakta.
- 5) Joint pain due to trauma.
- 6) Any other pathological disease related to joint pains.
- 7) Pregnant women.

6.5 GROUPING AND RANDOMIZATION -

60 Patients will be selected by simple randomised sampling method irrespective of age, sex, occupation, religion and socioeconomic status.

These 60 patients will be randomly divided into 2 groups i.e. 30 each

- Group A (Trial Group)
- Group B (Control Group)

6.6 DRUG ADMINISTRATION DETAIL -

Administration of drug should be done by following ways,

Patients of Group A will be administered Mustadi Kwatha Orally, while patients of Group B will be administered Tab. Piroxicam 20 mg orally. Both Mustadi kwatha and Tab.Piroxicam will be administered for 28 days.

Dose-After discussion with my Guide, HOD and Our Principal we decided dose, Sevankala as per grantha.

6.7 ASSESSMENT CRITERIA

	Group A (Trial Group) (Mustadi Kwatha)	Group B (Control Group) (Tab.Piroxicam 20 mg)
Drug Name-	Mustadi kwatha	Tab.Dolocip DT
Matra-	1pala (40 ml) BD	20 mg
Sevankala-	Pragbhakta (Before meal)	After morning meal OD
Route of drug administration-	Oral (Abhyantar)	Oral
Anupana-	Honey(Madhu)	Jala
Duration of treatment-	28 Days	28 days
Follow up-	After every 7 Days	After every 7 days

A) SUBJECTIVE PARAMETERS -

- 1) Kandu (Itching)
- 2) Sandhi Daha (Burning sensation)
- 3) Sandhi Ruja (Pain)
- 4) Sandhi Toda (Pricking pain)
- 5) Sandhi Sphurana (Trembling or throbbing pain)
- 6) Gaurava (Heaviness)

B) OBJECTIVE PARAMETERS -

- 1) Serum uric acid level (SUA)

6.8 FOLLOW UP -**GRADATION OF PARAMETERS -**

Assessment will be done on the basis of comparison difference between before and after treatment score of the symptoms in patients.

A) SUBJECTIVE PARAMETERS -

Sr No.	OBSERVATION	GRADE	CRITERIA
1	Kandu (Itching)	0 1 2 3 4	None Mild (Occasional Kandu) Moderate (Kandu on and off Severe (Continuous Kandu without disturbed sleep) Unbearable disturbing routine (Continuous Kandu with disturbed sleep)

2	Sandhi Daha (Burning Sensation)	0	None
		1	Mild (Occasional Daha)
		2	Moderate (Daha on and off)
		3	Severe (Continuous Daha without disturbed sleep)
		4	Unbearable disturbing routine (Continuous Daha with disturbed sleep)
3	Sandhi Ruja (Pain)	0	None
		1	Mild (Occasional Ruja)
		2	Moderate (Ruja on and off)
		3	Severe (Continuous Ruja without disturbed sleep)
		4	Unbearable disturbing routine (Continuous Ruja with disturbed sleep)
4	Sandhi Toda (Pricking Pain)	0	None
		1	Mild (Occasional Toda)
		2	Moderate (Toda on and off)
		3	Severe (Continuous Toda without disturbed sleep)
		4	Unbearable disturbing routine (Continuous Toda with disturbed sleep)
5	Sandhi Sphurana	01	Absent Present
6	Gaurava (Heaviness)	01	Absent Present

6.9 WITHDRAWAL CRITERIA –

The patient would be withdrawn from the trial, If there will be,

- 1) Occurrence of serious adverse effect.
- 2) If the investigator feel that the protocol have been violated /patient has Become un-cooperative
- 3) If the patient is not willing to continue the trial/to follow the assessment schedule.

PLACE OF WORK -

OPD and IPD of kayachikitsa department of-

S.V.N.H.T.s Ayurved Mahavidyalaya, Shrishivajinagar ,Rahuri factory

Tal-Rahuri, Dist-Ahmednagar-413706

6.10 OVERALL ASSESSMENT CRITERIA –**Effect of therapy-**

Sr. No.	Class	Percentage of improvement
1.	Good Improvement	Above 75-Upto 100% Relief in sign and symptoms
2.	Moderate Improvement	Above 50-Upto 75% Relief in sign and symptoms
3.	Mild Improvement	Above 25-Upto 50% Relief in sign and symptoms
4.	Unchanged	Less than 25% Relief in sign and symptoms

7. OBSERVATIONS AND RESULT -

- 1) Students 't' test for paired data and chi-square test for qualitative data will be applied as a test of significance or any other appropriate test needed.
- 2) Observations will be carried out before and after completion of treatment during each follow up.
- 3) The difference will be observed and statistically analysed.
- 4) Data obtained after the complete study of my work would be presented in the diagrammatic form e.g. Bar diagram, Pie charts, Graphs, etc.

All data will be summarised after discussion and conclusion as a table, chart and diagram on the basis of observation made.

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To Study The Shodhana Effect of Shuddha Madhu In The Management of Dushta Vrana



Mohsina Shaikh

Clinical : **To Study The Shodhana Effect of
Shuddha Madhu In The Management of
Dushta Vrana**



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ABSTRACT :

Nowadays non-healing wounds are difficult to treat for all doctor's. Hence, it become responsibility of every doctor irrespective of pathy to find out the way. This article will focus on Ayurvedic aspect of treatment in non-healing wound with Shuddha Madhu. We have done this work in 30 patients which is not sufficient for research point of view, we are not presenting research work only putting foreword that this could be line of treatment in Ayurveda.

KEY WORD : Dushta vrana. , Healing & regeneration , Wound

TOTAL NO. OF REF. - 03

INTRODUCTION :

Now a days there is tremendous research being conducted all over world to treat the different kind of wounds. At present there are various types of drug with different formulation & preparations are available in the market but each drug has its own limitation to heal the wound.

Plants and their formulation have immense potential for the management of wound. These natural agents induce healing & regeneration of lost tissue by multiple mechanism.

The wound which is contaminated or infected is characterized by presence of foul smell, pus discharge, pain etc. due to presence of dushta dosha is labelled as Dushta vrana.

AIMS AND OBJECTIVES :

AIM :-

“TO STUDY THE SHODHANA EFFECT OF SHUDDHA MADHU IN THE MANAGEMENT OF DUSHTA VRANA”

OBJECTIVES :-

1. To study duration required for Shodhana of 'Dushta vrana' by **“SHUDDHA MADHU”**.
2. To compile the various research data about **“SHUDDHA MADHU.”** regarding use in wound healing in various institutions and various research papers .

MATERIAL AND METHOD:

1. Identification & Authentication of drug will be done in Dravyaguna Department in Ashvin Rural Ayurved College And Hospital, with reference of Ayurvedic Pharmacopeia.
2. Patient attending the OPD/IPD of the post graduate department of Research unit., Ashvin Rural Ayurved College & Hospital Manchi Hill.

INCLUSION CRITERIA :

1. Infected wound due to trauma & accident.
2. Burn wound.
3. Post debridement wound.
4. 18 to 60 yrs of age group of both sexes
5. Diabetic wound.

EXCLUSION CRITERIA :

1. Gangrenous wound.
2. Varicose ulcer.
3. Neoplastic ulcer.
4. Below 18 and above 60 yrs patient.
5. Patients suffering from HIV, AIDS, HBsAg, Chronic Alcohol Withdrawal State, Intoxication Hepatic Encephalopathy, Severe Anemia.

ASSESSMENT CRITERIA : Vedana, Akrti, Varna, Gandha, Strava, Kandu

According to ashtang hrudayakar,

vraNashodhanasMdhaanaropaN vaatalM madhu |
rukShaM kaShaayamadhurM tattulyaa madhusharkaraa ||

a. hr. soo. 5/53

DISCUSSION :

Thirty patients were selected for study. All were subjected to dressing with SHUDDHA MADHU. The course of treatment was 7days or ruhyamana vrana appeared (whichever early) and daily follow up was taken.

1. Age :- Out of 30 patients selected for study, maximum incidences were seen in the age group between 18-30yrs, but recovery of wound was fast compared to above age group of 40-60.
2. Sex :- Maximum incidences of dushta vrana were seen in males.
3. Socio-Economic status :- Maximum incidences of dushta vrana were seen in low class and improvement of vrana slower.

4. Area involved :- Out of 30 patients, maximum dushta vrana seen in lower limb.
5. Habits :- Out of 30 patients, 16 were addicted and improvement of vrana slow.
6. Adhishtana :- All incidences were involve Twak-maansa adhishtana.

DISCUSSION ON EFFECT OF TREATMENT :-

Parameters used for accessment are Vedana, Akruti, Varna, Gandha, Strava, KandU.

Observations were made in 30 patients before and after treatment with application of Shuddha Madhu with regards to different subjective and objective criteria's.

1. Vedana :- All patients were complaining of pain before treatment. Out of 30 patients 10 got total relief from pain and pain in 18 patients was reduced. But, two patients didn't got relief from pain.

The mean pain score was 2.4 and after treatment it was reduced to 0.8.

2. Strava :- All patients were complaining of strava before treatment. The mean strava score before treatment was 2 and after treatment was 0.6.
3. KandU :- All patients were complaining of kandU before treatment. Out of 30 patients, 13 got complete relief from kandU. In 10 patients kandU was reduced markebly but 7 patients did not get relief from kandU.
4. Gandha :- All patients were complaining of gandha before treatment.
In all cases viz. 30 patients gandha was reduced but out of 30 patients, 15 got total relief from gandha after treatment. The mean gandha score before and after treatment was 2 and 0.7
5. Akruti :- Among the 30 patients 9 patients wound got totally repaired but 5 patients didn't got repaired and remaining patients got remarkable difference.

DISCUSSION ON EFFECTIVENESS OF DRUG :-

Amongst all 30 patients, maximum dushta vrana got converted into shuddha vrana but 7 patients wound were not converted into shuddha vrana, out of which most are diabetic wounds.

As Shudda madhu is best vrana shodhaka and vranaropaka, so "SUDDHA MADHU" help in increasing tensile strength of wound and shodhana.

CONCLUSION :

From the discussion on the subject "TO STUDY THE SHODHANA EFFECT OF SHUDDHA MADHU IN THE MANAGEMENT OF DUSHTA VRANA",

Following conclusions can be drawn –

1. SHUDDHA MADHU is significantly effective for the treatment of dushta vrana and statistical analysis proves the same.

As per the paired 't' test in the same following things are concluded.

- a. The probability for akriti is <0.001 and as per standards we have significant value less than 0.05 which proves the rightness of the treatment.
- b. The probability of kandu is <0.001 and as per standards we have significant value less than 0.05 which proves the rightness of treatment for kandu
2. Shuddha madhu on dushta Varna has found to be significantly effective in reducing Vedana, Varna, gandha, strava, kandu.
3. SHUDDHA MADHU has been found effective in reduction of wound area.
4. Even after wound healing and post treatment follow up no adverse reaction found in the present study.
5. Hence, it can be concluded that drug SHUDDHA MADHU is significantly effective on dushta vrana.

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My visit to USA a Wonderful experience

Kavita Indapurkar

I wanted to share with you the wonderful experience of my visit to USA. Few days back.I visited Charlotte .

Charlotte is a major city and commercial hub in North Carolina. Uptown Charlotte, is the heartbeat of the Queen City. Charlotte is called the Queen City because it was named for King George III of Great Britain's wife, Charlotte is very clean...Green ... Serene...And well maintained .

We also visited ...Ripley's Aquariumof the Smokies Gatlinburg,USA. Which is an amazing family attraction – State of the art. Having facilities with over 10000 exotic sea creatures That was simply amazing.

I Visited the University of North Carolina at Charlotte, also known as UNC Charlotte. University of North Carolina is a research university located in Charlotte, North Carolina, United States.

We also visited the Lazy 5 Ranch..Zoo with domestic & exotic animals from 6 continents, with wagon rides & petting areas. It is the Unique animal farm where the animals are well taken care of. Great family experience.

We can pet the animals & can feed them ...buckets of pellets available to purchase.

We also visited the Great Smoky Mountains..... a mountain range rising along the Tennessee–North Carolina border in the southeastern United States..... Various types of plants ... Flowers....Trees ...Full of greenery ...Full of serenity....Was thinking about the use of all these ...from Ayurvedic point of view.

I had an opportunity to discuss and interact about Ayurveda and Yoga and I am very happy to state here that there is a lot of scope for Ayurveda and Yoga there.

Everyone here is very much interested to know about Ayurveda...and ...the ideal lifestyle... I think Ayurveda and Yoga scholars have definitely a bright future across the world.The only thing is required....Is to study and work hard.





Guidelines for submission of articles.

- 1) Left top corner of article write one of following :
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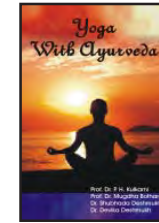
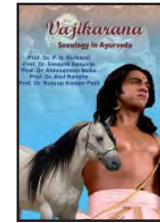
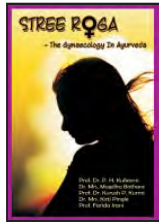
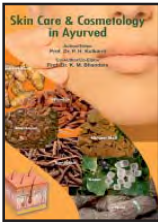
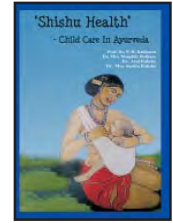
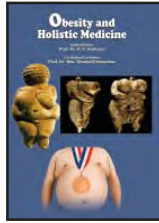
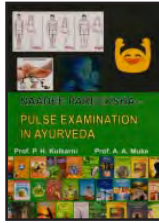
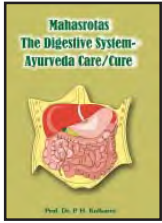
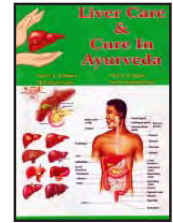
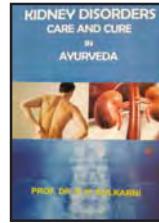
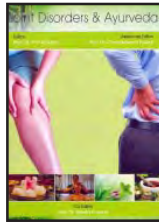
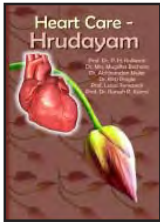
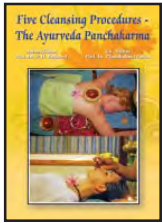
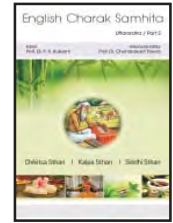
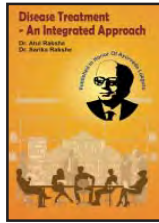
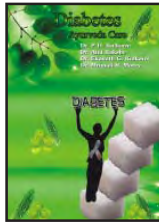
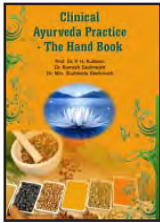
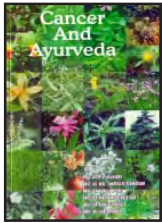
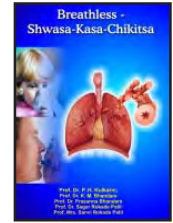
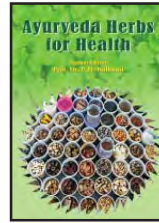
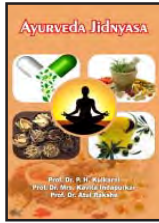
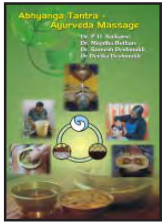
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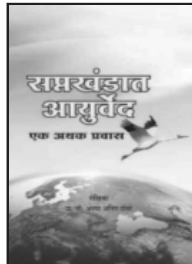
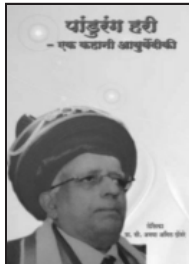
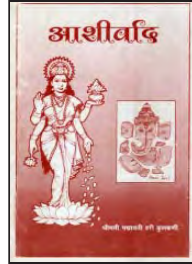
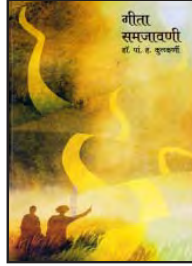
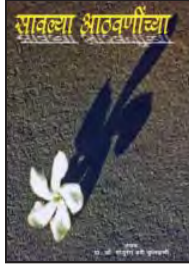
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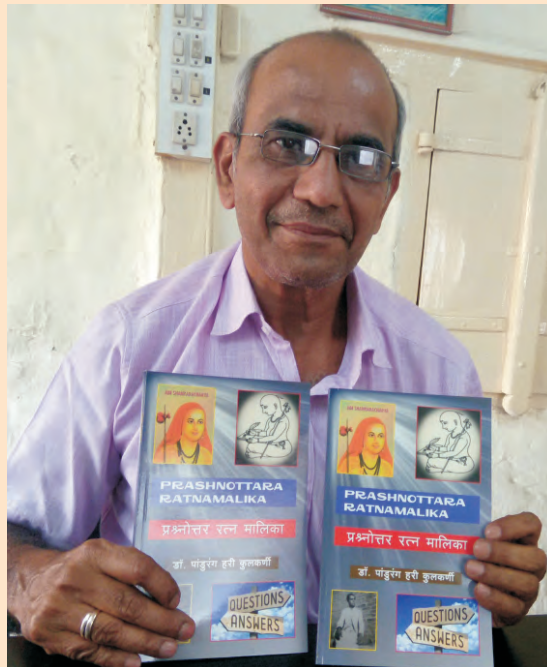
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