ISSN 2456-3110
Vol 2 · Issue 1
Jan-Feb 2017

Journal of Ayurveda and Integrated Medical Sciences

www.jaims.in

JAIMS

Charaka Publications

Indexed

ISSN: 2456-3110 ORIGINAL ARTICLE Jan-Feb 2017

Pharmaceutical evaluation of *Madhutailika Basti* formulation prepared by Classical and Modified Methods

Shruthi C.S,[1] Prabhakara Upadhyaya Renjal,[2] Sujatha K.[3]

[1]Post Graduate Scholar, [2]Professor & HOD, Department of Rasashastra and Bhaishajya Kalpana, SDM College of Ayurveda, Udupi. [3]Professor & HOD, Department of Rasashastra and Bhaishajya Kalpana, SDMIA, Bengaluru, Karnataka, India.

ABSTRACT

Madhutailika Basti', is a type of '*Aasthapana Basti'* also termed as '*Niruha Basti'*. The formulation of *Madhutailika Basti* comprises of *Madhu, Lavana, Taila, Kalka* and *Kwatha.* These ingredients are not easily miscible with each other. But to get the optimum therapeutic action from the formulation homogenious mixture of ingredients is necessary.Homogeneity of final mixture is assessed with certain features like, non- spreading, not-staying as a lump, not retaining its markings when it is placed on the palm.As this process needs creation of vigorous shear force within the mass material usage of sophisticated equipment for mixing may make the preparation processing easier and convenient, especially in large scale work.Hence it is planned to conduct the study on *Madhutailika Basti* formulation prepared by classical and modified methods. An effort is been put to know the reason behind serial order of mixing and difference between classical and modified methods of mixing *Madhutailika Basti* formulation.

Key words: *Madhutailika Basti, Madhu*, *Taila*.

INTRODUCTION

Madhutailika Basti', a type of '*Aasthapana Basti'* also termed as *'Niruha Basti'*. The formulation of *Madhutailika Basti* comprises of *Madhu, Lavana, Taila, Kalka* and *Kwatha*.[1] These ingredients are not easily miscible with each other. But to get the optimum therapeutic action from the formulation homogenious mixture of ingredients is necessary. References regarding serial order of mixing of ingredients is available in classics as *Madhu* and *Saindhava* followed by *Taila*, then *Kalka* after that *Kashaya*.[2] Homogeneity of final mixture is assessed with certain features known as *Su-yojitha Niruha Lakshanas*. They are non- spreading, not staying as a lump, not retaining its markings when it is placed on the palm.[3] Importance towards methodology of mixing might be to maintain these features i.e. physical stability of the mixture for a longer duration. Mannual method of mixing is adopted during the addition of each ingredient to get the homogenious mixture. As this process needs creation of vigorous shear force within the mass material, usage of sophisticated equipment for mixing may make the preparation processing easier and convenient, especially in large scale work. Hence it is planned to conduct the study on *Madhutailika Basti* formulation prepared by classical and modified methods.

Address for correspondence:
Dr. Shruthi C.S.
Post Graduate Scholar, Department of Rasashastra and Bhaishajya Kalpana, SDM College of Ayurveda, Udupi.
E-mail: dr.shruthicheemullu346@gmail.com

Submission Date : 09/02/2017 Accepted Date: 26/02/2017

Access this article online

Quick Response Code

Website: www.jaims.in

DOI: 10.21760/jaims.v2i1.7492

History of *Basti*

In *Kaushika Sutra* of *Atharvaveda, Basti* is indicated as a substitute for minor operation.[4] *Garuda Purana* has described the *Yantra* of *Basti* and *Doshas* of *Basti*. *Siddaushadha Kathana Adhyaya* of *Agni Purana*

ISSN: 2456-3110 ORIGINAL ARTICLE Jan-Feb 2017

indicates *Basti* as a principle treatment in complaints marked by predominance of *Vata*. In *Charaka Samhita* detailed description about *Basti Karma* is available in the *Siddhisthana*. *Acharya Susruta* has devoted four full chapters for the description of *Basti in Chikitsasthana*.[5] In *Astanga Sangraha* references in *Sutrasthana* explaines about *Basti. Astanga Hrudaya Sutrasthana* provides information regarding classification, indication, contraindications, process of administration, *Bastinetra* etc. *Acharya Vruddha Jeevaka* has explained the *Basti* in general as well as with respect to *Kumara*. Three chapters of *Uttarakhanda* in *Sharangadhara Samhita* describes various aspects of *Anuvasana Basti, Niruha Basti* and *Uttara Basti* respectively. In *Bhavaprakasha Basti* is explained in detail in *PurvaKhanda, Vranabasti* the type of *Basti* has also been explained in this *Grantha*.[6] Other than these *Basti* is also explained in *Bhela Samhita, Harita Samhita, Vangasena* and so on.

Vyutpatti of the word *Basti*

The word *Basti* is derived from '*Vas' Dhatu,* by adding '*Tich' Pratyaya, Vasti* word is derived.

Vas +Tich = Vasti (Vachaspatya)

The word "*Basti*" has been defined as, The therapy which while moving in the *Naabhipradesha, Kati, Parswa* and *Kukshi* does the churning of *Shakrut* and morbid matter located there and then evacuate them in proper manner and provides nourishment to the body is called as *Basti*.[7]

Drug Revew

Madhutailika Basti is prepared with following ingredients,

Drugs	Rasa	Guna	Virya	Vipaka	Karma
Madhu	*Madhura*,[8] *Kashaya*	*Laghu, Ruksha Sukshma*	*Sita*	*Katu*	*Ropana Shodhana, Tridosha Shamana*
Saindhava	*Lavana, Madhura*	*Snigdha Tikshna*	*Sita*	*Madhura*	*Tridosha Shaman*
Lavana		*Sukshma*			*a*
Tila	*Madhura Katu Tikta Kasaya*	*Vyavai Guru Snigdha Suksma*	*Usna*	*Madhura*	*Vatagha na Agnibala Vardhaka.*
Shatapushpa	*Katu Tikta*	*Laghu Ruksha*	*Usna*	*Katu*	*Kaphavata Shamaka*
Eranda	*Madhura*	*Guru, Snigdha*	*Usna*	*Madhura*	*Vatahara, Vrushya Amapacana*

Methodology

In the present study 6 samples of *Madhutailika Basti* are prepared with same ingredients taken in same quantity but with different methods.

Reference for the study is taken from *Bhavaprakasha,*[9] which include following ingredients:

- *Madhu* **:** 50ml
- *Saindhavalavana* **:** 3.125gms
- *Tilataila* **:** 50ml
- *Shathapushpakalka* **:** 6.25gms
- *Erandamulaquatha* **:** 100ml

In this study an attempt has been made to document minute details of the preparation of *Madhutailikabasti* through following procedures.

Step 1: Preparation of *Erandamulakashaya*

Step 2: Preparation of *Shatapushpakalka*

Step 3: Preparation of *Madhutailikabasti* with following equipment as mentioned below:

- Sample 1: Mixing the ingredients in serial order using mixer.

ISSN: 2456-3110 **ORIGINAL ARTICLE** Jan-Feb 2017

- Sample 2: Mixing the ingredients all together using mixer.
- Sample 3: Mixing the ingredients all together using edge runner mill.
- Sample 4: Mixing the ingredients in serial order using edge runner mill.
- Sample 5: Mixing the ingredients in serial order using churner.
- Sample 6: Mixing the ingredients all together using churner.

Analyzing the mixing process

While adding ingredients in serial order

- Initially *Madhu* and *Saindhava Lavana* are taken in the equipment.
- Preparation is continued until *Lavana* is completely dissolved.
- Then *Tila Taila* is added and again mixed for specific time period. Here oil layer should become minute globules,mixture should become homogeneous.
- It is followed by adding of *Shatapushpa Kalka*. Mixing is done so that *Kalka* particles remain uniformly distributed and do not settle down at the base of the vessel.
- At last *Erandamula Kwatha* is added,mixing is continued until it properly mixes with oil globules.
- Homogeneity of final mixture is assessed with certain features under the heading *Su-yojithaniruhalakshana.*
- Finally quantity of *Basti* formulation is measured.

When adding ingredients altogether;

- All ingredients are mixed and preparation is done in particular equipment as mentioned above.The process is continued until *Su-yojithaniruhalakshanas* are seen
- Finally quantity of *Basti* formulation is measured.

Results

Samples	Time consumed for the ingredients to get mixed				
	Madhu + Lavana	+ Tila Taila	+ Shatapushpa Kalka	+ Eranda Mulaquatha	Total time taken
1st sample (mixer –serial order)	6 min	2 min	5 min	2 min	15min
2nd sample	mixer-all together				13min
3rd sample	edge runner mill -all together				40min
4th sample (edge runner mill-serial order)	11 min	13 min	4 min	20min	48min
5th sample (churner-serial order)	15 min	15 min	11 min	10min	51min
6th sample	churner-all together				66min

OBSERVATIONS

Colour of *Madhu* starts to become dull when mixing is started. Initially *Lavana* settles down at the base. Roughness of *Lavana* can be felt on placing it in between thumb and index finger.

When *Madhu* is completely mixed with *Lavana*, its golden brown colour changes into dull brown and

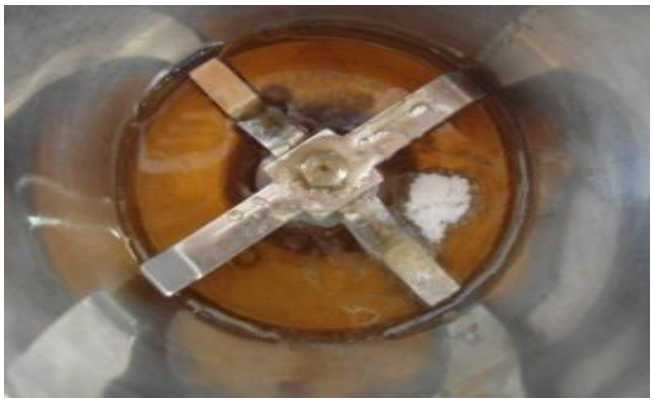
ISSN: 2456-3110 **ORIGINAL ARTICLE** Jan-Feb 2017

Lavana cannot be felt. When *Tila Taila* was added it remains as separate shiny layer.

As mixing is continued oil layer splits into minute globules and all the ingredients remain as a single entity. Then on adding *Kalka*,it starts to settle at the base. After specific time period *Kalka* gets uniformly distributed. *Kwatha* is added at the end and preparation is continued. All the ingredients could be seen uniformly mixed with each other.

Photographs of 6 sample as follows:

1st Sample:Mixing the ingredients in serial order using mixer



2nd sample: Mixing the ingredients all together using mixer

ISSN: 2456-3110 **ORIGINAL ARTICLE** Jan-Feb 2017

3rd sample: Mixing the ingredients all together using edge runner mill

4th sample:Mixing the ingredients in serial order using edge runner mill

6th sample:Mixing the ingredients all together using churner

ISSN: 2456-3110 ORIGINAL ARTICLE Jan-Feb 2017

DISCUSSION

Mechanism adopted having a great influence on mixing of immiscible ingredients. In Mixer (1st sample)-ingredient are rotating in single direction with fixed base. No pressure is applied on particles. More over mixer gets heated up while doing the preparation, hence temperature has its impact on final formulation. Separation rate is mild in this method.

In Edge runner mill (4th sample) base will be rotating in circular motion with two stone running opposite to each other.This produce both positive and negative mixing, results in union and separation at the same time. As soon as *Taila* and *Kwatha* are mixed they get separated into two layers. Here particles loose the attraction toward each other. So it takes much time to mix the immiscible ingredients like *Taila* and *Kwatha*. Separation rate is rapid in this method.

Churning (5th sample) is the ancient method followed by our *Acharyas*. Mixing is unidirectional with the application of manual pressure. Each and every particle pass in between churner and base of vessel makes the drugs to be miscible with each other. Formulation remain stable for long time.

While adding ingredient all together they are not getting sufficient time to get mixed. It interferes with mixing of drugs with each other. They are not stable, separation begins immediately in edge runner mill method (3rd sample). Separation starts slowly in mixer method (2nd sample) and very slowly in churner method (6th sample).

CONCLUSION

Immiscible ingredients are made miscible with each other to get optimum therapeutic action and to have maximum stability. So in churner method while adding ingredient in serial order we could see proper mixing and poor separation of ingredients which remained stable for long period. But there was moderate rate of separation in samples from mixer and rapid separation in samples from edge runner mill. Hence compared to samples prepared with churner, those from mixer and edge runner mill can be considered as inferior respectively. As these samples were subjected for analytical study, proper understanding of classical and modified methods and finding a reason behind serial order of mixing would be explained in a better way with analytical study results.

REFERENCES

1. Sri Brahma Shankara Mishra and Sri Rupalalji Vaishya , Bhaava Praakasha, Bhava Mishra with Vidyotini Hindi Vyakya, Poorvakhanda (First Part), Panchakarmavidhi Prakarana, 5th chapter, verse no. 166-167, 11thedition, Varanasi, Chaukamba Sanskrit Bhavan, 2010;p.879.
2. Vaidya Yadavaji Trikamji Acharya, Sushruta Samhitha, Acharya Susrutha, Nibandha Sangraha Commentary by Sri Dalhanacharya and Nyaya Chandrika Commentary by Sri Gayadasacharya, Chikitsasthana,35th,36th,37th,38th chapters, verse no.35/1-33,36/1-51,37/1-127,38/1-118,38/33-36 and 38/100-101, Varanasi, Chaukamba Sanskrit Sansthana,2013;p.525-548,542 &547.
3. Samshodhankarta Shri Vaidya Shankarlalji Jain, Vanga Sena Samhitha,Vanga Sena, Hindi Commentary by Kaviraj Shri Shaaligramji Vaishya, Basti Karma adhikara, verse no.142, Mumbai, Khemraj Krishnadas Prakashan, 2003;p.996.
4. Padmashree Dr.Kapiladeva dwivedi, Dr.Bharatendu dwivedi, Vedomein Ayurveda, Jnanapura, Vishwabharati Anusandhana Parishad, 2001;p.96.
5. Vaidya Yadavaji Trikamji Acharya, Susrutha Samhitha, Acharya Susrutha, Nibandha sangraha Commentary by Sri Dalhanacharya and NyayaChandrika Commentary by Sri Gayadasacharya, Chikitsasthana,35th,36th,37th,38th chapters, Varanasi, Chaukamba Sanskrit Sansthana, 2013;p.525-548,547-548.
6. Sri Brahma Shankara Mishra, Sri Rupalalji Vaishya , Bhaava Praakasha, Bhava Mishra with Vidyotini Hindi Vyakya, Poorvakhanda (First Part), Panchakarmavidhi Prakarana, 5th chapter, 11thedition, Varanasi, Chaukamba Sanskrit Bhavan, 2010;p.870-882.
7. Vaidya Yadavji Trikamji Acharya, Charaka Samhita, Acharya Agnivesha, Ayurveda Deepika Teeka by Chakrapaani, Siddhisthana, Kalpana Siddhi, Chapter no. 1, verse no. 1/40, Varnasi, Chaukambha Surbharati Prakashan, 2014;p.684.
8. Sri Brahma Shankara Mishra and Sri Rupalalji Vaishya , Bhaava Praakasha, Bhava Mishra with Vidyotini Hindi vyakya, First Part (Nighantu Bhaga), Madhu Varga,

ISSN: 2456-3110 **ORIGINAL ARTICLE** Jan-Feb 2017

11th edition, Varanasi, Chaukamba Sanskrit Bhavan, 2010;p.788.

9. Sri Brahma Shankara Mishra and Sri Rupalalji Vaishya , Bhaava Praakasha, Bhava Mishra with Vidyotini Hindi vyakya, Poorvakhanda (First Part), Panchakarmavidhi Prakarana, 5th chapter, 11th edition, Varanasi, Chaukamba Sanskrit Bhavan, 2010;p.879.

How to cite this article: Shruthi C.S, Prabhakara Upadhyaya Renjal, Sujatha K. Pharmaceutical evaluation of Madhutailika Basti formulation prepared by Classical and Modified Methods. J Ayurveda Integr Med Sci 2017;1:85-91.
http://dx.doi.org/10.21760/jaims.v2i1.7492

Source of Support: Nil, **Conflict of Interest:** None declared.

****