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COMPARATIVE PHARMACEUTICAL- ANALYTICAL STUDY OF *BADARASHMA PISHTI* W.S.R TO ITS PURIFICATION METHOD

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ABSTRACT

Abstract - *Hajral Yahud -Badarshma* (Lips Judaicus, Jew's stone) is an animal origin fossil obtained from Arabian countries. Even though there is no reference of this drug in *Rasa* text but later authors after 20th century included *Badarashm*a under *Sikata varga dravyas*.

Aims and objective- To do *Basarashma shodhan* by four different method. To prepare *Basarashma Pisht*i by classical reference and subject them for analytical test.

Methodology-As per the reference Rasamrita, *Badarashma Pishti* was done. Four samples of *Pishties* were subjected to analytical parameters along with organoleptic characters. The prepared *Pishties* were compared by subjecting them to analytical parameters along with organoleptic characters

Observations & Results: As per four classical references *shodhan* of *Badarahma* was done. As per reference of Rasamrut *Badarashma Pishties* were prepared. The colour of all four *Badarashma Pishties* was Greyish white. Moisture content in BP1(0.11%) is less when compared with other 3 *Pishties* BP3(0.18%), BP4(0.40%), BP2(0.50%). Ash content of is less in BP2(0.35%) when compared with other 3 *Pishties* BP1 (0.63%), BP4 (0.67%), BP3 (1.83%). Acid insoluble ash is less in BP2 & BP4 (0.53%) when compared with other 2 *Pihties* BP1(0.89%), BP3(1.59%). Assay of Calcium is more in BP2 (i.e.36.61%) when compared with other 3 *Pishties* (BP4-35.52%), (BP3-35.43%), (BP1 -32.85%)

Conclusion: Moisture content in BP1(0.11%) is less, Ash content of is less in BP2 (0.35%), Acid insoluble ash is less in BP2 & BP4, Assay of Calcium is more in BP2.The chemical analysis and preparation of *Badarashma Pishti* can be referred and used for further research work.

Keywords: *Badarashma Pishti, Shodhana, Hajral Yahud, Hajratbera*

INTRODUCTION:

Badarashma (compound of silica and lime) is an animal origin fossil obtained from Arabian countries[1]. The word "*Badarashma*" constitute of two words: *Badar* & *Ashma*. The drug resembles the fruit *Badar* and hard like stone[2]. In Unani medicine, it is called as *Yahudi* or *Hajratbera* & was using since 3-4 B.C. in the form of *Kushte*, *Pisthi* & *Majun*[3].Even though there is no reference of this drug in *Rasa* text but later authors after 20th century included this *Badarashma* under *Sikatha Varga dravyas*. It was first described *by Vd. Yadavji Trikamji Acharya* in Rasamrutam[4]. *Badarashma* is also called as Fossil encrinites. The internal administration of this *Badarashma* can be done in two forms i.e. *Bhasma* and *Pishti*[5]. The *Pishti* of *Badarashma* is helpful in treating the

urinary disease like *Mutrashmari* (urinary calculi), *Mutraghata* (obstruction of urine), *Motrakrichra* (difficulty during micturition) etc and is considered as *Mootrala* (Diuretic)[6]. To do *Shodhan* of *Basarashma* by four different Classical references and prepare their *Pishties* by classical reference and subject them for analytical test.

METHODOLOGY - PHARMACEUTICAL STUDY

1. In the present study, *Badarashma* was procured from *Ganesh Aushadhalaya, Dava bazar* (Local market) in Mumbai. *Badarashma* were selected according to their *grahya lakshana.*

2. *Badarashma shodhan* was done according to four different classical references in Shri. KGMP Ayurvedic College, Charni road, Mumbai.

3. As per the reference of Rasamrita, four different respective *Badarashma Pishties* were prepared. Four samples of *Pishties* were subjected to analytical parameters along with organoleptic characters. The prepared *Pishties* were compared by subjecting them to analytical parameters along with organoleptic characters.

Table No.1. Physical Characteristics of Raw Material (Unpuried *Badarashma*):

Physical Characteristics	**Finding**
Colour	Greyish white, Stone like material
Size	½ - 1 inch
Shape	Oval
Lustre & touch	Lustreless & Smooth

Pharmaceutical procedure:

1. *Shodhana* (purification) of *Badarashma* by four different methods.

a. Purification in warm water (Rasamrita)[7]

b. Purification in *Mulaka swarasa* (*Ayurvediya RasaShatra* by Dr. Siddhinandan Mishra)[8]

c. Purification in *Nimbu swarasa* (Rasa Darpan-1)[9]

d. Purification in *Kadali kanda swarasa* (Ayurvediya RasaShatra by Dr. Chandrahushan Zha)[10]

2. Powdering of *Shodhita* (purified) *Badarashma* (B)[11]

3. Preparation of four *Badarashma Pishti*. (BP)[12]

1.*Shodhana* of *Badarashma*: -

I) *Shodhana* was carried out according to the reference of Rasamrita. *Ashudha Badarashma* was taken in a clean stainless-steel vessel and 2 litres of boiled water was added. Rubbing was done by hand till water turns into white colour. Then the water was drained out after the wash. Same procedure was carried out till it become free from the impurities. After completion of *shodhana, Badarashma* was dried under shade.

Table No.2 Result found after *Shodhana of Badarashma* in warm water

***Badarashma* 1**	**Before *Shodhana***	**After *Shodhana***	**Loss**	%of Loss
Weight	1.500 kg	1.400 kg	100gm	6.67 %
Colour	Greyish white with dust	Grey		

b.Shodhana was carried out according to the reference of *Ayurvediya Rasa shastra* by Dr. Chandrabhooshan Zha & *Ayurvediya Rasa shastra* by Dr Siddhinandan Mishra. *Ashudha Badarashma* was heated and dipped in juice of radish for 7 times, taking care not to allow the pieces to get scattered.

Table No.3 Result found after *Shodhana of Badarashma* in Radish juice

***Badarashma* (2)**	**Before *Shodhana***	**After *Shodhana***	**Loss**	% of Loss
Weight	1.900 kg	1.850 kg	50 gm	2.63 %
Colour	Greyish white with dust	Grey		

c) *Shodhana* was carried out according to the reference of Rasa Darpana in *Nimbu Swarasa* -

Table No.4. Result found after *Shodhana-Sample* 3 *Shodhana* in *Nimbu Swarasa*

***Badarashma* (3)**	**Before *Shodhana***	**After *Shodhana***	**Loss**	% of Loss
Weight	0.850 kg	0.830 kg	20 gm	2.35 %
Colour	Greyish white with dust	Greyish white		

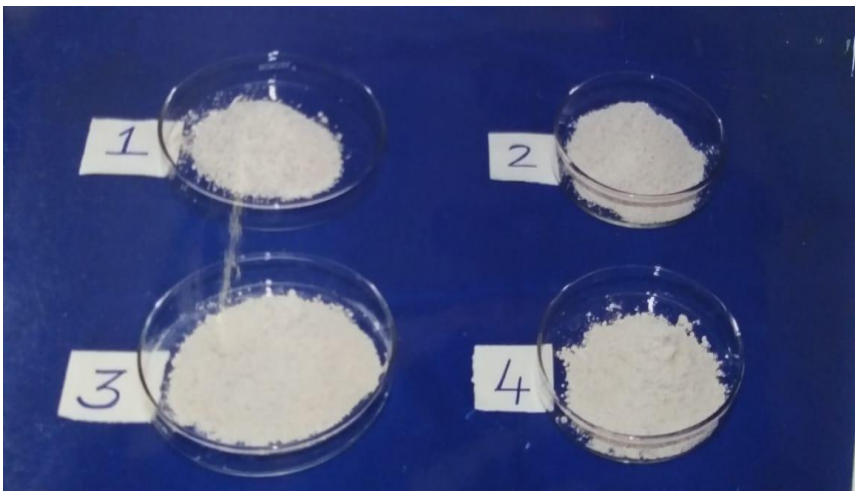
d)) *Shodhana* was carried out according to the reference of *Ayurvediya Rasa shastra* by Dr. Chandrabhooshan Zha. *Ashudha Badarashma* was heated and dipped in *Kadali Kanda Swarasa* for 7 times, taking care not to allow the pieces to get scattered.

Table No.5 Result found after *Shodhana of Badarashma* in *Kadali Kanda Swarasa*

***Badarashma* (4)**	**Before *Shodhana***	**After *Shodhana***	**Loss**	% of Loss
Weight	0.400 kg	0.390 kg	10 gm	0.625%
Colour	Greyish white with dust	Greyish red		

2.Powdering of *Shodhita Badarashma*: Reference followed for this preparation *Sharangadhara Samhita*. *Shudha Badarashma* was weighed and taken in mortar and pestle and powdered. This powder was sieved through the dry, clean, thick white cotton cloth. By this process fine powder of *Badarashma* was obtained.

Badarashma Churna



4.**Preparation of *Badarashma Pishti*:** After purification *(Shodhana) Badarashma* was put in *khalva* & ground in the rose water and dried. The process was repeated for three consecutive days. The final product was dried under shade.

Analytical study- Chemical Analysis of raw *Badarshma, Shodhit* four samples of *Badarashma* & their respective *Pishties* were done in *Arogya Mandir* of Shree Dhootpapeshwar limited, Panvel.

Table No.6 Result showing Chemical analysis of 4 *Badarashma Churna*

1.Description	**B1** Grey Color Powder, Odor Characteristic Tasteless	**B2** Grey Color Powder, Odor Characteristic, Tasteless	**B3** Grey Color Powder, Odor Characteristic Tasteless	**B4** Grey Color Powder, Odor Characteristic, Tasteless
2. pH	8.58	8.56	8.32	8.53
3.Loss on drying	0.11%	0.04%	1.11%	0.12%
4.Loss on ignition	44.35%	17.13%	0.45%	0.25%
5. Acid insoluble Ash	0.92%	0.95%	1.87%	1.10%
6.Assay of Calcium	35.79%	31.65%	35.15%	35.04%

Table No.7 Chemical analysis of 4 *Badarashma Pishties*

***BADARASHMA PISHTI* – BP**				
	BP - 1	**BP – 2**	**BP - 3**	**BP – 4**
Description	Grey Color Powder,	Grey Color Powder,	Grey Color Powder	Grey Color Powder
Loss on drying	0.112%	0.5%	0.18%	0.403%
Loss on ignition	0.63%	0.35%	1.83%	0.673%
Acid insoluble Ash	0.89%	0.53%	1.59%	0.53%
Assay of Calcium	32.85%	36.61%	35.43%	35.52%

OBSERVATIONS & RESULTS: As per four classical references *shodhan* of *Badarahma* was done. As per reference of Rasamrut *Badarashma Pishties* were prepared. The colour of all four *Badarashma Pishties* was grey in colour. Moisture content in BP1(0.11%) is less when compared with other 3 *Pishties* BP3(0.18%), BP4(0.40%), BP2(0.50%). Ash content of is less in BP2 (0.35%) when compared with other 3 *Pishties* BP1 (0.63%), BP4 (0.67%), BP3 (1.83%). Acid insoluble ash is less in BP2 & BP4 (0.53%) when compared with other 2 *Pishtie*s BP1(0.89%), BP3(1.59%). Assay of Calcium is more in BP2 (36.61%) when compared with other 3 *Pishties* (BP4-35.52%), (BP3-35.43%), (BP1 -32.85%)

DISCUSSION: *Shodhan* of *Badarahma* was done by four different methods.

In first method *Badarashma* was ready to use after purification of *Badarashma* in hot water for thrice. In second method *Badarashma* was ready to use after purification of *Badarashma in* radish juice after 7 times. In third method *Badarashma* was ready to use after purification of *Badarashma* in Lemon juice for one time. In forth method *Badarashma* was ready to use after purification of *Badarashma in Kadali Kanda Swaras* juice after 7 times. *Shodhan* of *Badarshma* in warm water was more economical than Radish juice and Kadali kand Swaras. During preparation of *Pishti*, the *Bhavana* with *Gulab jala* helps to impart cold property to the formulation. Total 3 *Bhavanas* were given to get the *Badarashma Pishti*. The quantity of rose water for the *Bhavana* is reduced with successive *Bhavana* process

Conclusion: Moisture content in BP1(0.11%) is less, Ash content of is less in BP2 (0.35%), Acid insoluble ash is less in BP2 & BP4, Assay of Calcium is more in BP2.The chemical analysis and preparation of *Badarashma Pishti* can be referred and used for further research work.

REFERENCES:

1. Vaidya Yadavji Trikamji Acharya, Rasamrutham, Varanasi, Choukambha Sanskrit Samsthana; 2008. p. 180-83.
2. Vaidya Yadavji Trikamji Acharya, Sidhayoga sangraha. Sri Baidyanath Ayurveda Bhavan; 1998. p. 176-97. 10
3. Vaidyaraj Hakim Daljit Singh, Unani Dravyagunadarsha, Ayurved Evum Tibbe Akadami, Uttar Pradesh, Lacknow,1st edition,1977p.238.
4. Vaidya Yadavji Trikamji Acharya, Rasamrutham, Varanasi. Choukambha Sanskrit Samsthana; 2008. p. 180-83.
5. Dr. Vilas Dole, A text book of Rasa shastra & Bhaishajya Kalpana, Chaukhambha Sanskrit Pratishthana, Delhi.1st edition,2004, Page no384-385
6. Damodar Joshi (editor). Rasamrita of Yadavaji Trikamaji, Sikatavarga, 1st edition, Varanasi, Chowkhambha Sanskrit Sansthan, Series 1998, p.126
7. Vaidya Yadavji Trikamji Acharya, Rasamrutham, Varanasi, Choukambha Sanskrit Samsthana; 2008. p. 180-83.
8. Mishra Siddinandana, Ayurvediya Rasashastra, 15th ed. Varanasi: Choukambha Orientalia;2006. p.570-610.
9. Bhajandas Swami Dadupantha,Rasa darpan Part -1,1st edition,Natha Pustak Bhandar, Rohatak , p. 341-342
10. Chandrabhooshan Jha. Ayurvediya Rasashastra, Varanasi: Chaukhambha surabharathi publication;2010. p.53-479.
11. Pandit Parashuram Shashtri Vidya sagar (editor) Commentary: Deepika commentary by Adhamalla and Goodartha deepika by Kashirama on Sharangadhara Samhitha of Sharangadhara, Madyama Khanda, chapter 6th, verse no. 1. 7th edition, Varanasi, Choukambha Orientalia, Series 2008.p. 178.
12. Damodar Joshi (editor), Rasamrita of Yadavaji Trikamaji, Sikatavarga, 1st edition, Varanasi, Choukhambha Sanskrit Sansthan Series 1998; p.126.

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