



Pharmaceutical, Analytical Study of Pravala Pishti

Vishva Dumasiya¹, Abhayakumaram Mishra², Snigdha Das³

¹PG Scholar, Department of Rasa Shastra & Bhaishjya Kalpana, Parul Institute of Ayurveda, Vadodara Gujarat, India.

²Professor, Department of Rasa Shastra & Bhaishjya Kalpana, Parul Institute of Ayurveda, Vadodara Gujarat, India.

³HOD, Department of pharmacology, Parul institute of Pharmacy and Research, Gujarat, India.

For Correspondence: vishdumasiya1107@gmail.com

ABSTRACT

Rasashastra deals with the preparation of variety of formulation that it includes kharaliya, parpati, pottali, kupipakva etc. Pishti is also a drug dosage form which is mentioned in Ayurvedic system of science. Pishti preparations are useful for paittika disorders and mainly prepared with precious and semiprecious stones by triturating with prescribed liquids. Pravala is one among precious stones and which is indicated for number of diseases in the form of pishti, so here a study was planned to prepare Pravalapishti and to establish analytical parameters of it. Pravalapishti passes all the confirmatory tests and the analytical values recorded as 13.25%W/W as Ash value, 0.178 as Acid insoluble ash, 15%w/w as loss of drying, 3.777 as alcohol soluble extractive, 2.91 as water soluble extractive, particle size obtained after passing it through mesh size 120 was 100%.

Keywords: *Pravala, Pishti, Pravalapishti*

Received 15.12.2021

Revised 17.02.2022

Accepted 23.02.2022

INTRODUCTION

All the drug which are dealt in Rasashastra are collectively known as Rasadravya, they include Rasa, Maharasa, Uparasa, Sadharana rasa, Dhatu, Ratna, Uparatna, Sudha varga, Siktavarga, Ksharavarga, Visa vargadavya. This branch also deals with preparation of Herbo-mineral compounds using varied drugs of plant as well as animal origin. Here, Pravala is derived from animal origin and it comes under the category of Ratna and is related to Mangala graha. In Ayurveda Rasashastra is one of the specialized branch in which Ratnas play important role both for the ornamental and therapeutic purposes. The use of Pravala for internal purpose and preparing various formulation can be observed. pravala is available in two forms 1) pravalashakha and 2) pravala moola. Internally as medicine, it is administered in the form of Bhasma and pishti for curing ailments such as Amlapitta, Netra roga, Hridayaroga etc. Here, Pravalashakha was used for the preparation of Pishti. It is one such area of formulation that is chiefly used in Rasashastra that may not be much useful after incineration. The word Pishti literally means that which is finely powder using the process of trituration in a particular media. It generally made into a very fine powder similar to flour [1-8]. Here, present study is planned to compile pharmaceutical aspect and analytical parameter of the Pravalapishti.

MATERIAL AND METHODS

The study is mainly divided into 2 phase

- I. Pharmaceutical study
- II. Analytical study

I. PHARMACEUTICAL STUDY

A. Shodhana [2]

B. Pharmaceutical study of *pravalapishti* was prepared at parul institute of Ayurveda Pharmacy vadodara. *shodhana* procedure was carried out in *jyantiswarasa*. The roughly pounded *pravala* was tide in *pottali* subjected for 3 hr of *swedana* in *dolayantra* by keeping *jyantiswarasa* media later, the drug will be washed, dried and store in airtight container for further procedure.

Table No.1: Various references of Pravala Shodhana procedure

REFERENCES	PROCESS	TIME REQUIRED	MEDIA USED
R.T.[2], Ratna Vigyan [1]	Swedana	1 yama	Jayanti Swarasa
		1 yama	Swarjikaksharajala
		1 yama	Tanduliyadrava
Rasa pradipika [5]	bhavana	-	Sahadevipatraswaras
Rasa pradeep [7]	Swedana	-	Jayanti Swarasa
Rasendra Chintamani [6]	swedana	-	Jayanti Swarasa
		-	Swarjikakshara, yavakshara, tankanadrava
		-	Godugdha

Table No. 2: Observation during Shodhana of Pravala

MEDIA	QUANTITY ML	INITIAL WEIGHT	FINAL WEIGHT	LOSS	%OF LOSS
Jayanti swarasa ²	700ml	200gm	195gm	5gm	2.5%

B. Pravala Pishtinirman:

After Pravalashodhana procedure we pounded the Pravala into powder form and passes through 80 no mesh and made fine paste with Gulabjal (rose water) for 21 days. It was in light rose colour [3-8].

Table No.3: various references of PravalaPishti procedure

REFERENCES	BHAVANA DRAVYA	TIME REQUIRE
A.S.S ⁴	Gulab jala	3days
R.T.S.S.P.S ³	Gulab jala	21days

Table No. 4: observation during Pishti of Pravala

MEDIA	INITIAL WEIGHT	FINAL WEIGHT	LOSS	%OF LOSS
Gulab jala	195gm	105gm	90gm	46.15



Img.1 Pravalashakha before



Img.2 Jayanti patra



Img.3 Jayanti swarasa for swedana



Img. 4 Swedana procedure



Img. 5 Pravalashakha after shodhana



Img. 6 Pounding of Pravalashakha procedure



Img. 7 Rose water



Img.8 Bhavana of pravala with rose water



Img. 9 Pravalapishti,

ANALYTICAL STUDY

Analytical studies of the *Pravalpishti* sample was carried out by classical parameters such as *varna* (colour), *Rasa* (taste), *Gandha* (odour), *Rekhpurnatva* (filling in the ridges of fingers) and *varitaratva* (flotting on water), *sukshmatwa* (sufficient fitness), *Mridutwa* (softness). Modern physicochemical parameters such as determination of pH, specific gravity, loss on drying, ash value, acid insoluble ash [9].

Table No. 5: Classical Parameter of *Pravala Pishti*

<i>Varna</i>	Light pink colour
<i>Rasa</i>	Tasteless
<i>Gandha</i>	Rose like odour
<i>Sprasa</i>	Smooth
<i>Sturcture</i>	Fine powder
<i>Varitaratva</i>	Present
<i>Mridutwa</i>	soft in nature
<i>Sukshmatva</i>	Present

PHYSICO - CHEMICAL PARAMETERS:

1) Total ash:

For determination of total ash, 2gm of accurately weighed sample was taken in a previously weight and dried crucible and incinerated at the temperature not exceeding 450°C until free from carbon. The crucible was taken out, allowed to cool and weight immediately. The percentage of the total ash was calculated and expressed as percentage w/w [9].

2) Determination of Acid-Insoluble Ash:

To the crucible containing total ash, add 25 ml of *dilute hydrochloric acid*. Collect the insoluble matter on an ashless filter paper (Whatman 41) and wash with hot water until the filtrate is natural. Transfer the filter paper containing the insoluble matter to the original crucible, dry on a hot-plate and ignite to constant weight. Allow the residue to cool in a suitable desiccator for 30 minutes and weigh without delay. Calculate the content of acid-insoluble ash with reference to the air-dried drug [9].

3) Determination of Alcohol Soluble Extractive:

Macerate 5 g of the air dried drug, coarsely powdered, with 100 ml of alcohol the specified strength in a closed flask for twenty-four hours, shaking frequently during six hours and allowing to stand for eighteen hours. Filter rapidly, taking precautions against loss of solvent, 25 ml of the filter was evaporated to dryness in a dried, previously weight, tared flat bottomed evaporating dish and dried 105°C to a constant weight. from the weight of the residue obtained the percentage of alcohol-soluble extractive with reference to the air-dried drug [9].

4) Determination of Water Soluble Extractive:

Water soluble extractive was obtained by following the same procedure as described for alcohol soluble extractive, using *chloroform-water* instead of alcohol [9].

5) Determination of Moisture Content (Loss on Drying):

For determination of loss on drying, 5gm of the fine powder of sample was taken in a previously weight petridish. it was then dried in an hot air oven at a temperature of 105°C for 5hrs. The powder was then cooled and weighted. From the weight noted, the loss on drying of the sample was calculated and expressed as percentage w/w [9].

Table No. 5: Analytical Parameter of pravala Pishti

Parameters	Results
Ash value	13.25%w/w
Loss on drying	15%w/w
Acid insoluble ash	0.178
Alcohol soluble extractive	3.777
Water soluble extractive	2.91
Particle size	0

PROBABLE MODE OF ACTION:

Praval Pishti is predominant in *Madhura, Amla, kashaya rasa*. It shows *Laghu Guna, Sheetavirya, and Madhura vipaka*. It pacifies *kapha and pitta doshas*. It also has positive effect on various Dhatus such as *Rasa, Rakta, Mamsa, Ashthi and Sukra*. The properties of rose water are *Madhura, Tikta, Kashaya rasa*. It is having *Guru guna, Sheetavirya, Madhura vipaka*³. It also balances all the three dosha and increasing efficacy of *Praval Pishti*. It consists of calcium carbonate, magnesium and few trace minerals. It is best for pitta-javikaras and also indicated in *Kasa, Raktapradara, Rakta pitta, Amlapitta* [3].

RESULT AND DISCUSSION:

An attempt was carried out to conduct Pharmaceutical and Analytical study of *Praval Pishti* in our esteemed institution. To purify and increase the bio-compatibility of a drug Shodhana that is purification procedure is carried out. *Shodhana of Praval Shakha* (stems of Praval) were carried out by boiling it in *Dola Yantra* containing *Jayanti (Sesbania sesban) Swarasa* for 3hours. [2] Then it was collected and dried. After drying pounded in *Ullukhala Yantra* and sieved with no 80 mesh. Then the powdered was levigated with Rose water [8]. It was continuously triturated with Rose Water for 21 times. One trituration was continued upto drying of added liquid quantity. Its The organoleptic characters recorded as colour change was observed from Pink colour to more light pink colour. It is tasteless. It is having odour of Rose water. soft and smooth in touch. After tremendous levigation for 21 times the particle size obtained after passing it through mesh size 120 was 100%. Hence it is very fine in nature. Particle size is decreased, increasing absorption and imparting more therapeutic efficacy. The Loss on Drying value of *Praval Pishti* is 15% w/w thus containing less moisture. Ash value is 13.25%W/W found within the specified limit thus proving the least presence of organic matter and pure in nature. Water soluble extractive value is 2.91 and Alcohol soluble extractive value is 3.777 Hence after analysing all the organoleptic and analytical parameters it can be concluded that the drug is pure, not adulterated, devoid of contamination and having good quality standards [9].

CONCLUSION

Pravalpishti is a unique formulation mentioned in *Rasa Shastra*. *Praval* is a *Ratna* having cooling property and its qualities are enhanced by pharmaceutically preparing it under Moonlight. *Pishti* is formed by tremendous trituration under cooling moon rays, thus reducing particle size and increasing absorption in

minute channels. It is effective yet simple formulation containing single mineral drug "Praval" and most soothing liquid media that is "Rose-water". Praval Pishti is most popular and highly recommended formulation in combating all Paittika disorders.

REFERNCES

1. Pt Parasaradhakrsna. Ratnavignana (gemology). (2nd ed.). Varanasi: Chaukhambha bharati academy
2. Sastry Kasinath (2012), Rasatarngini, Ed. Varanasi: Motilalbanaras; Trayovimasti Tarang, 626-680.
3. Krishnan (2013). Rasatantrasara evam Siddhaprayogasangraha part - 1. (22nd ed.). Ajmer, Rajasthan: Krishna Gopal Ayurveda Bhavana.
4. Anonymous, Ayurveda Sara Sangrah, Shodhanamaranaprakarana, 119.
5. Vedanthacharyaputramukumba venkatacharya virachita. Rasa pradeepika Ed. Kendriya Ayurvedia evam sidhaanusandhana parishat; 2001. Tritiyaswasa, 70.
6. Acharya dhundhuknath hindi translation by S.N.Mishra (2011). Rasendrachintamani, varansi; chokhamba orientalia.
7. Sidhinanda Mishra (2004). Gananath Dwiwedi. Rasapradeep. 1st ed. Varanasi; Chokhamba Orientalia.
8. Pharmacopial standard for Ayurvedic formulation, published by C.C.R.A.S., New Delhi revised edition 1987.
9. Joshi, D., & Joshi, G. (2011). *Quality Control & Standardization of Ayurvedic Medicines*. Chaukhambha Orientalia.

CITATION OF THIS ARTICLE

Vishva Dumasiya, Abhayakumaram Mishra, Snigdha Das. Pharmaceutical, Analytical Study of Pravala Pishti. Bull. Env. Pharmacol. Life Sci., Vol 11[4] March 2022 : 141-145.