

NAMBURI PHASED SPOT TEST ANALYSIS (NPST) OF MANASHILASATWA (HERBO-MINERAL COMPOUND) FORMULATION

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ABSTRACT

Satwa is considered as essence of minerals and that is of two varieties viz 1) *Dhaturupa* 2) *Adhaturupa*. *Manashilasatwa* is considered as a *Adhaturupa* and because of its different therapeutic indications like *Kusta*, *kasa*, *hikka*, *Netra roga* etc used in routine practice. Due to its Toxic Nature, analysis becomes a primary step before administrating to the patient. *Manashila shodhana* was carried out using *ardraka swarasa bhavana* for seven times and *satwapatana* was carried out in *kosti* by using *musha* and *sharava* according to *Rasa Tarangini* reference *satwapatana* procedure was followed. In this study we selected *Namburi* Phased Spot Test (NPST) as a basic analysis to confirm its purity. SOP was followed to carry out procedure 1st phase shows Dark brown spot with yellow periphery, 2nd phase shows dark brown margin with light brown periphery Light yellow colour in central spot and 3rd phase shows Light brown periphery with wide margin around the brown central spot. The prepared sample has shown same result as of standard.

Keywords: *Manashilasatwa*, NPST, *Satwapatana*, *Shodhan*.

INTRODUCTION

Manashila is used in Ayurveda since many years. Use of *manashila* is described well in *samhitas* like *Charaka*, *Susrutha*, *Haritha*, *Bhela*, *Kashyapa*. It is included under *uparasa*. It is also used in *Rasa karma* and *Dhaturanjana*. *Manahshila* has been used in *Kusta* (Skin disease), *Kasa* (cough), *Hikka* (Hiccups) and eye disease since ancient period of *Samhitas*.¹

Manashila was selected for the study and was authenticated by the Geologist and experts based on

the *grahya lakshanas* and geological identification parameters. The Purification of *Manashila* facilitates continuous contact and triturating it in *Ardrkaswarasa*. Total seven *bhavanas* were given which might be removing some oxide and other arsenic compound impurities associated with AS_2S_2 .² *Manahshila* yields Arsenic in the form of *Sattva* through *Sattvapatana* procedure. *Manahshila* One part and 1/8th part of *Mandura* (Iron rust/oxidized iron), *Guda* (Jaggery), *Guggulu*

(*Commipheramukul*) and *Sarpi* (Ghee) separately are taken, mixed in *Khalva* and triturated. Then it is filled in *Moosha* (Crucible) and kept in *Kosti* (a kind of fire instrument) and *Teevragni* (intense heat) was given for 3 hours. By this, *Manahshila Sattva* is obtained.³

NPST is the study of a spot with series of changes in color and pattern, at three successive phases spreading over three different time intervals. It has advantage of measuring the sensitivity of reactions at different time intervals. In other words, this is a method to study or detect continual chemical reactions that take place gradually between two chemical substances on static media at every second or even at a fraction of a second.⁴

AIM AND OBJECTIVES:

To Analyse *Manashila Satwa*

Materials And Methods:^{5,6}

Involves following steps

- Preparation of *Manashila satwa*
- Preparation of Paper and solution for NPST

- Evaluation of NPST

Method: Phased Spot Test

It is the study of this spot and colours at three successive phases spreading over three different time intervals is known as the “Phased Spot Test”.

Materials:

- Aqua Regia 2ml
- 10% Pot iodide paper
- Sample of *Manashila Satwa* 1gm
- Test Tubes

Procedure:

Preparation of Solution:

1gm of *Manashila Satwa* is mixed with 2 ml of Aqua Regia and allowed to react it for 30 min, after 30 minutes the mixture was heated. Shaking was done in between and kept for 72 hours without disturbing for reaction.

After 72 hrs, prepared solution was dropped on 10% potassium iodide paper, observed in three intervals of time, 1st phase at 0- 5 min 2nd phase at 5min - 20min, 3rd phase at 20 min – many hours.

Table 1: NPST result of *Manashilasatwa*

Solution	Paper	Phase	Observation
1 gm <i>Manashilasa</i> <i>twa</i> +2ml Aqua Regia	10% KI paper	1 st Phase (0-5min)	Dark brown spot with yellow periphery
		2 nd Phase (5-20min)	Dark brown margin with light brown periphery Light yellow colour in central spot
		3 rd Phase (20min- many Hrs)	Light brown periphery with wide margin around the brown central spot.

DISCUSSION

A classical method of *shodhana* of *manashila* was carried out by *Ardraka Swarasa Bhavana* for seven times and powdered *Shodhita Manashila* was mixed with all the ingredients. The duration taken for mixing was more that is three hours due to sticky nature of *guggulu* and *guda*. After drying bolus kept in *musha* and *sandhi bandhana* was done and placed in *Koshti*. *Koshti* was placed in open air to avoid more exposure to fumes. Yellow fumes started to appear, which indication of escaping of Sulphur. After it stopped white fumes appeared which indication of *satwa* being extracted. *Guda*, *guggulu*

and *ghrita* act as reducing agent. These organic materials after burning convert into carbon. Carbon is effectively used in different extractive metallurgy as reducing agents.

NPST, as the test is chemical reaction – based, with specific results for specific phases. The reference of *manashila satwa* is not available, we can compare *Talaka Group* as a standard and study was carried out. SOP was followed to carry out the NPST of *manashilasatwa* 1st phase shows dark brown spot with yellow periphery, 2nd phase shows dark brown margin with light brown periphery light yellow colour in central spot and 3rd phase shows Light brown periphery with wide margin around the brown

central spot. The prepared sample has shown same result as of standard.

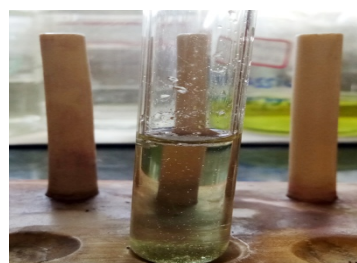
CONCLUSION

This technique is very helpful for quality assessment of *manashila satwa* as per the standards of *Rasashastra*. It is a simple test that it can be carried

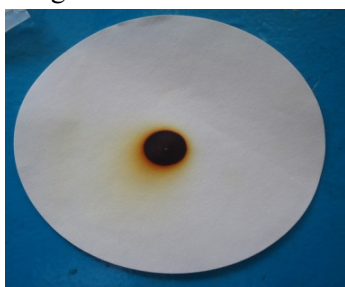
out with minimum set up and requirements. CCRAS has also accepted the monograph of NPST, and the quality of *manashila satwa* can be checked before being used therapeutically. In the present study the *manashila satwa* gave results in accordance to NPST standards.



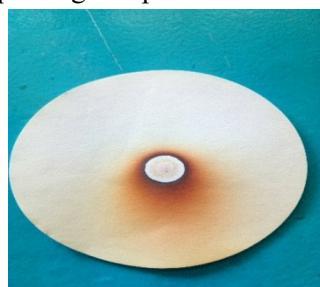
1gm manashilasatwa and 2ml Aqua Regia kept for reaction



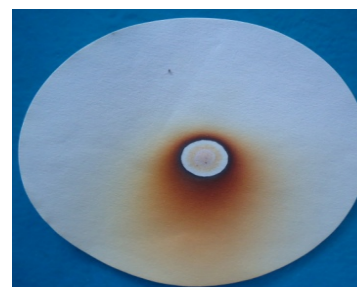
After 72 hours of Reaction



1st phase 0 min-5 min



2nd phase 5 min -20 min



3rd phase 20min-many hours

REFERENCES

1. Sri Madhava, Ayurveda Prakasha, Hindi Commentary by Gulraj Sharma, Chaukambha Sanskrit series office, Varanasi, Edn.1999, 2/214-224
2. Ashok D Satpute Rasaratna Samuchchya, pubn. Chaukambha Sanskrit series office Varnasi, 3/89-90
3. Vaidhya Sadaanandasharma, Rasa Tarangini, Chaukambha Sanskrit series office, Varnasi Edn. V 11/106,117-129
4. Dr. Rao Namburi H: Application of standardized Namburi Phased Spot Test. Project work submitted to CCRAS, New Delhi.
5. Santosh Bhoja Shettar, Poornima B.T, Jadar P.G. Evalution of market samples of 'yashada bhasma' us-

ing 'Namburi Phased Spot Test'. Journal of Ayurveda & integrative Medicine April -June 2011 vol -2 issue

6. Dr. Veena. B. Kupati 'Namburi Phased Spot Test Analysis (NPST) of Rasasindura (Herbomineral Preparation) International journal of Scientific Research-Nov 2014 Volume: 3 Issue: 11.

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