



## EFFICACY OF SHATAVARI TAILA NASYA AND BRAHMI GRITHA IN THE MANAGEMENT OF APASMARA

Sharmitesh R Tripathi \*, Savitha HP, Suhas Kumar Shetty

Department of Manovigyan Evam Manasa Roga, SDM College of Ayurveda and Hospital, Hassan, Karnataka, India

\*Corresponding Author Email: tripathi\_vansh@rediffmail.com

DOI: 10.7897/2277-4572.05635

Received on: 09/08/16 Revised on: 02/01/17 Accepted on: 11/01/17

### ABSTRACT

Apasmara is a disorder described in the various ancient Ayurvedic texts affects both the mind and body in form of episodes of uncontrolled muscle activity and clouding of consciousness. The disease bears a striking similarity with epileptic disorders described in the contemporary sciences. The management of this disorder is done through various modalities which utilizes various routes of drug administration. One such non oral route is Nasya- that is administering of powdered or liquid medicament into the nostrils. Shatavaritaila (*Asparagus Racemosus*) selected for this study has ingredients like Erandabeeja (*Riccinus communis*) Ashwagandha (*Withania somnifera*) Ksheervidari kanda (*Prurera tuberosa*) are all indicated in management of Apasmara and ingredients of Brahmigritha, Brahmi, (*Bacopa monifera*) Vacha (*Acorus calamus*), Kusta (*Saussurea lappa*), Shankhapushpi (*Convolvulus pluricaulis*) and Purana Ghrita, are individually proven better as Shamana Oushadhi.

**Keywords:** Apasmara, Epilepsy, Ayurveda, Shatavaritailanasya, Brahmigritha

### INTRODUCTION

Apasmara is a disorder affecting both the mind and body, which is described in the various texts of Ayurveda. It is similar to the epileptic disorders mentioned in the contemporary science. It holds the perilous distinction of affecting all the walks of life of an individual suffering from this disorder. Epilepsy is considered as a dreadful and devastating disorder with an incidence of 5-10 per every 1000 persons<sup>1</sup>. Explained as a disease entity where there is *Apagama of Smrti* (deviant functioning of the memory) associated with *Tamah Pravesha* (blacking out), and *Bibhatsa Chesta* (tonic clonic movements),<sup>2</sup> with the involvement of *Sangyavaha srotas* (Nervous system) which according to the science are the channels through which *manas* traverses. *Ayurvedic* sciences have described a twofold approach, both at the time of attack and in between the attack. The modalities described in the texts of *Ayurveda* have both palliative as well as curative actions and recalibrates the body from the pathological to the physiological state. The modalities as well as their mode of action have always attracted the attention of those who are in search for safer approaches for the efficient management of this dreadful disease. *Nasya* is one such, therapy which is advised. This therapy as described delivers the drug in the head and clears the vitiated *Doshas*.<sup>3</sup> As per the anatomical consideration, the surrounding anatomical structure and the nasal mucosa facilitates the early absorption of the drug. The drug utilized in this study were extracted in lipid soluble medium (sesame oil), hence the lipid soluble molecules can cross the Blood Brain Barrier. This increases the availability of active principles of the drug in the brain compared to other routes of drug administration<sup>4</sup>. The drug selected in this study is *Shatavaritaila* as explained in *Apasmaara Chikitsa adhikarana* in *Charaka Samhita and Haritha samhita*. This *yoga* contains five ingredients, *Shatavari* (*Asparagus racemosus*) *ErandaBeeja* (*Riccinus communis*), *Ashwagandha* (*Withania somenifera*), *Tila Taila* (*Sesamum indicum*) ,*KsheerVidarikanda* (*Prurera tuberosa*) and Milk<sup>5</sup> which when administered in the *Taila* form

was found to bring down the symptoms of *Apasmara*, along with *Brahmi Gritha* containing *Brahmi*, (*Bacopa monifera*) *Vacha* (*Acorus calamus*), *Kusta* (*Saussurea lappa*), *Shankhapushpi* (*Convolvulus pluricaulis*) and *Purana Ghrita*,<sup>6</sup> which was given as a *Shamana Oushadhi*, as mentioned in *Charaka Samhita*. These drugs with their *Guna karma* are indicated in the management of the *Apasmara*. Extensive researches on the active ingredients of these drugs have been found to actually work on the convulsions which are a part of the disease pathology.

**Aims and objectives:** to study the efficacy of *shatavaritailanasya* and *brahmigritha* in *apasmara*.

### MATERIALS AND METHODS

34 diagnosed patients of *Apasmara* who fulfilled the inclusion criteria and willing to register for study were selected from the outpatient (OP) and inpatient (IP) department of *Manasaroga*, SDM College of Ayurveda & Hospital, Hassan and studied as a single group. Institutional Ethical Committee (IEC) clearance was obtained prior to the study [IEC NO: SDMACAH/IEC/120/13-14 Dated 5<sup>th</sup> April 2014]. Duration of the study was for 2 month. Assessment was done before and after the study period.

#### Inclusion Criteria

- Symptoms of *Apasmara*
- 16 to 40 years of age.
- On irregular medications
- One year history of *Apasmara*
- Subjects, who were not being benefitted by other medicines, were included without disturbing their regular medicines.

#### Exclusion criteria

- Subjects with diabetes mellitus, hypertension, congenital abnormalities

- Mental retardation, infectious diseases of brain, vascular causes, toxic causes, metabolic causes of seizures and space occupying lesions.
- Subjects contraindicated for Nasya as per the classics.

**Diagnostic Criteria**

Samanya lakshanas as mentioned in Ayurvedic texts<sup>6</sup>

BhruPrasphurana (tingling of the eye lids)

AkshiPrasphurana (tingling of the eyes)

JihwaPrasphurana (tremors of the tongue)

Hasta Vikshipana (tremors of the hands)

PadaVikshipana (tremors of the legs)

Pasyanthirupani (hallucinations)

Phenavamana (frothing from mouth)

Pralapa (epileptic cry)

Clinical features of Epilepsy by International League against Epilepsy (ILAE).<sup>7</sup>

- Loss of consciousness
- Self-regaining of consciousness
- Convulsive movements:
- Fall after the convulsion
- Epileptic cry during the attack
- Frothing from mouth
- Chattering of teeth
- Hallucination

**Plan of study:** 34 patients were screened and selected according to the diagnostic criteria and a single group study was conducted. They were administered Nasyawith Shatavari Taila for seven days and later subjected to Shamana therapy by Brahmi Gritha for two months. The patients were analyzed after Nasyaat the end of seven days initially and later on every consecutive 15<sup>th</sup> day, for a period of two months.

**Statistical Analysis:** Statistical analysis was done using SPSS VER.20. Cochran q was applied to analyze the significance of the change in subjective parameters. Mc-Nemar signed rank test was applied for post hoc which showed significance in Cochran q test, to interpret the time of significant change.

**OBSERVATION AND RESULTS**

Patients who came to the OPD with the complaints of seizures were screened under the diagnostic criteria and 34 patients who fulfilled the inclusion criteria were selected and registered for the study. Out of 34 patients, 4 patients withdrew from the study. The drop outs were due to economic constraints and other reasons. The results were analyzed under the purview of duration, frequency, severity of the attack and symptoms accompanying the attack.

The study pointed out a lot of facts with respect to the particular age group, the first decade of the life was found to be more prone for this disease. nature of profession and type of individual susceptible to the disease, Students were found to more frequently reporting to the outpatient department with complaints of seizure, 36% of students were found in this study. Among the precipitating factors, sleep deprivation was found to be major triggering factor in causing the disease.

Frequency of the attacks reduced after seven days of Nasya. Consequently, improvements were observed in the complaints of loss of consciousness, where 93.3% reported them before treatment and after Nasya it was found to be just 3.3% of the patient and later after the Shamana treatment it was found to have reduced in 76% of the patient. Convulsive movements were reported by 96% of the patient which at the end of total therapy was found to reduce to 16.7% fall, epileptic cry, frothing from mouth and chattering of teeth by the end of the follow up period of 2 months. These were significant at (p < 0.001), similar observations were made in case of duration and severity of attacks.

**Table 1: Distribution of symptoms in patients of apasmara**

Symptoms	Present	Absent	Percentage of present symptoms
Loss of consciousness	30	4	88.2%
Self-regaining of consciousness	30	4	88.2%
Convulsive movements	31	3	91.2%
Tingling of the eyelids	19	15	55.9%
Upward rolling of eyes	27	7	79.4%
Tongue bite	16	18	47.1%
Shaking of the hands with fist forming	24	10	70.4%
Shaking of the leg	24	10	70.4%
Fall after the convulsion	16	18	47.1%
Epileptic cry	20	14	50.8%
Frothing from the mouth	29	5	85.3%
Chattering of teeth	22	12	64.7%
Hallucination	00	34	0%

**Table 2: Age wise distribution of the patients of apasmara**

Age in years	Frequency	Percentage
16-30	15	50.0
30-40	8	26.7
40-50	7	23.3
Total	30	100

**Table 3: Gender wise distribution of patients of apasmara**

Gender	Frequency	Percentage
Male	14	46.7
Female	16	53.3
Total	30	100

Table 4: Observations on symptoms of apasmara

SN	Clinical parameters	Mean score			N	Chi square	Df	P value
		BT	DT	AT				
1	Loss of consciousness	1.07	1.97	1.77	30	19.2	1	0.001
2	Self regaining of consciousness	1.07	1.97	1.77	30	19.2	1	0.001
3	Convulsive movements	1.03	1.97	1.83	30	19.2	1	0.001
4	Fall after a convulsive movement	1.63	1.93	2.00	30	2.13	1	0.14
5	Epileptic cry	1.40	2.00	1.97	30	13.3	1	0.001
6	Frothing from mouth	1.20	2.00	1.87	30	0.00	1	1.00
7	Chattering of teeth	1.30	1.97	1.87	30	3.3	1	0.68

Table 5: Calculation of duration and frequency of attacks

SN	Clinical parameters	Mean score	N	Chi square	Df	P value
1	Duration of attack before treatment	2.60	30	9.200	3	0.27
2	Duration of attack after treatment	0.47	30	34.267	3	0.00
3	Frequency of attack before treatment	2.93	30	7.667	4	0.105
4	Frequency of attack after treatment	0.57	30	48.00	4	0.00

## DISCUSSION

Epilepsy is a medical condition characterized by repeated seizures due to disorder in the brain cells. It is a life-long tendency, though the seizures may start at any time during the life. It occurs sporadically or frequently in form of seizure, which is preceded by an aura. The seizure is seen as a sudden abnormal function of the body, often with loss of consciousness, an excess of muscular activity, or its loss in the long run. The excessive nerve-cell discharges or excitation may be limited to a localized lesion or focus, giving rise to partial/focal seizures, or else the whole brain or focus spreading into the whole brain and spinal cord resulting in generalized seizures. An *Ayurvedic* understanding of this disease involves a deeper understanding of its paroxysmal nature which is rooted in the *Doshas* in conjunction with *Nidana Sevana* (i.e. indulgence in the etiological factors). In this study *Shatavari Taila Nasya* and *Brahmi Gritha* as *Shamana Oushadhi* was utilized in the management of *Apasmara*, the study showed improvements in the various parameters of the disease.

These observations coincide with the various researches done on the active ingredients of the drugs utilized in the study on the convulsive movements.

All the ingredients of *Shatavritaila* and *Brahmigritha* have found to reduce the extensor tonus phase of convulsion in their standard doses, *Erandabeeja* for example was found to reduce the extensor tonus phase by 70% against thirty percent standard diazepam, *Vidarikanda* reduced the extensor tonus phase in 45% of the cases, *Ashwagandha* 70% in dose of 100mg/kg did reduce the tonus extensor phase of the convulsion.<sup>8</sup> Studies point out that this action might be either due to suppression of GABA pathways in case of *Shatavari* when its extract is used in pentylenetetrazole induced seizures, Therefore there is a need for both the *Shodhana* (internal cleansing of the body) and the *Shamana* (palliation of symptoms) which in this study is fulfilled by administering *Shatavaritaila* in form of *Shodhana Nasya* and *Brahmi Gritha*, orally, in the form of *Shamana* therapy. It was observed that, the severity of the attacks reduced after the *Nasya* therapy initially and furthermore by the end of the *Shamana* therapy. Observation of this phenomenon, in this disorder- *Apasmara*, reconfirms the *Ayurvedic* dictum that vitiated *Doshas* causing diseases should first be removed by the *Shodhana* therapy and later by the means of *Shamana* therapy.

**Probable mode of action:** *Apasmara* has two distinct features, first is the paroxysmal nature and the second, loss of *Smriti*(memory) which is evident from the definition. Thus the

drugs which are used in the preparation are all *Vatakaphara* and *Medhya* in nature.

The drug '*Shatavari taila*' has *Tridosha Shamana* property and is predominantly *Vata Shamaka*. It is also *Agni Deepaka* and *Sroto Shodhaka*. Some of its Ingredients have *Anulomana* (carminative) property, which also acts on *Vata*. The drug as a whole is *Medhya*, *Ojasya*, and *Rasayana*. Considering all these properties, the drug acts on the mind. The abnormalities like convulsive movements and the others are greatly *Vata* predominant, which are cured by the *VataShamaka* action of the drug. The *Srotoshodhaka* action of the drug, removes the *Aavarana* of *Tamas* blocking the mind.

In this study, it has been observed, that these ingredients administered through the nasal route reduce the frequency duration and the severity of attacks, rapidly. This probably is due to the fact that *nasya* is believed to be a therapy which delivers drugs directly to the head through the *Sringatakamarma* and detaches the morbid *doshas*. The anatomical and the physiological considerations of the surrounding nasal structure help to enhance a better drug absorption and the nature of medicaments that is lipid soluble medium of the drugs in *ShatavariTaila* potentiate the process.

The *Shamana Oushadhi- Brahmi Gritha*, with the ingredients- *Brahmi*, *Vacha*, *Kusta*, *Shankhapushpi* and *PuranaGhritha*, along with their specific *guna-karma* potentiate the action of *Shodhana* therapy to successfully prevent the recurrence of the attacks. In an individual study *BrahmiGritha* was found to show effective action as *ShamanaSneha*. *BrahmiGhritha* as *ShamanaSneha* provided significant relief in the severity of attack, frequency of attack, duration of attack.

## CONCLUSION

Epilepsy or *Apasmara* is an extensively researched disease and its management has just reached a stage where only seizures can be controlled. Some difficulties arise, in terms of the route of drug administration during the active state of convulsion where the conventional routes are difficult to access or inaccessible. Hence in this study, an easier route of administration was explored, for providing a management with better outcome, for Epilepsy.

## REFERENCES

1. Patricia O. Shafer RN epilepsy incidence from the epilepsy foundation, available at <http://incidence//epilepsy.com>

2. Agnivesha Charaka Samhita, Chikitsasthanaapasmachikitsa-adhyaya 10/3 revised by Charaka and Dridhabala, Ayurveda Deepika commentary by Chakrapanidatta; Published by Chaukhambha Orientalia Varanasi,
3. Smita Lokhande, Swapnil Patil, Avinash Chogule, Probable mode of Nasya: International Journal of Ayurvedic Medical Journal Volume 4; Issue 03; March – 2016, ISSN: 2320 5091
4. Savitha HP Role of Jyotishmati Taila administered as Nasya and orally in vishada RGUHS Bangalore.
5. Karnaroga adhikara yogaratnakar chaukhamba publication.
6. Agnivesha Charaka Samhita, Chikitsasthanaapasmachikitsa-adhyaya 10/12-13 revised by Charaka and Dridhabala, Ayurveda Deepika commentary by Chakrapanidatta; Published by Chaukhambha Orientalia Varanasi
7. <http://www.ILAE.org> Clinical symptoms of epilepsy
8. Meena Manti epileptic activity of indigenous herbal extracts-a review Asian journal of pharmaceutical and clinical research vol 6 2013

**How to cite this article:**

Sharmitesh R Tripathi, Savitha HP, Suhas Kumar Shetty. Efficacy of shatavari taila nasya and brahmi gritha in the management of apasmara. *J Pharm Sci Innov.* 2016;5(6):

Source of support: Nil, Conflict of interest: None Declared

Disclaimer: JPSI is solely owned by Moksha Publishing House - A non-profit publishing house, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. JPSI cannot accept any responsibility or liability for the site content and articles published. The views expressed in articles by our contributing authors are not necessarily those of JPSI editor or editorial board members.