

Comparative Clinical Study of Role of Saraswatchurna in Apasmar

Sonali Dilip Wairagade¹, Tanvi Wairagade², Anuja Vasant Nagrare³, Abhishek Joshi⁴

¹Associate Professor, Department of Kayachikitsa, Datta Meghe Ayurved Medical College Hospital and Research Centre, Wanadongri, Nagpur, Maharashtra, ²MBBS Third Year (Major), HBT Medical College and Dr. R N Cooper Hospital, Mumbai, Maharashtra, ³Associate Professor, Department of Agadtantra, Datta Meghe Ayurved Medical College Hospital and Research Centre, Wanadongri, Nagpur, Maharashtra, ⁴Associate Professor Dept. of Community Medicine, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences, Wardha

Abstract

Ayurveda explains disproportion in the three doshasvata, pitta and kapha singly or all of them together can cause Apasmar. Aggravated doshas get accumulated in hridaya and create the features based upon Doshic predominance, which cause illusion of the mind and visual hallucination and seizures (tonic spasms and clonic jerks). Often it is presented with outwarding of tongue, deviation of the eyes, dribbling of saliva with froth, tonic and clonic movements of limbs. Epilepsy is characterized by recurrent, episodic, paroxysmal, involuntary clinical events related with alternation of cerebral function. An epileptic attack is an rapid and unwarranted electric discharge of cerebral neurons. Saraswat Churna is a popular Compound drug which is successfully used in Psychological disorders. It is mentioned in “Unmada Prakaran” of well known Ayurvedic book of “ Bhaishgya Ratnawali” that Saraswat Churna consists of different types of Medhya Rasayana herbs like Vacha, Shankhapushpi etc. and Brahmi Swarasbhawna is given to it for three times. Phenytoin (Diphenyl Hydantoin or Dilantin) is highly effective and widely prescribed anticonvulsant drug used in the treatment of grand mal and psychomotor epilepsy. Phenytoin has been used to treat thought, mood and behaviour disorders, cardiovascular disorders, neuro muscular disorders, gastrointestinal disorders, Endocrine disorders. As Dilantin showed adverse reactions like urticarial like skin rashes, gastric irritation, resulting in nausea, vomiting, hyperplasia and hypertrophy of the gums noted in 90% of patients was not noted in patients treated with Saraswat Churna.

Keywords: Apasmar, Epilepsy, Saraswatchurna, Dilantin, Diseases, Treatment, Adverse Reactions.

Introduction

Since time in memorable with existence of human being disease is associated. “Dis-ease” when a human being suffers from uncomfortableness or any alternation in normally; he is said to be diseased. Hippocrates is to

modern system of medicine what Sushrut and Charak are to Ayurveda, But at least Hippocrates had bit of previous work to develop upon while Charak and Sushrut have done everything first hand and their work is pioneering, as well as astronomical. Transient loss of memory or loss of memory of convulsions is known as Apasmar^{1,2}. In this disease patient gets convulsions, attacks of falling down and frothing from mouth. After convulsions patient is again normal. According to Ayurveda constituents of body are divided into two types 1st Sthula and 2nd Sukshma. Dosa, Dhatu and Mala are of sthula type and Atma, Indriya Mana are of Sukshma type. According to Ayurveda; Apasmar is a psychosomatic disorder. In more or less proportion Apasmar found in almost all countries. Being prevalent in both sexes, all age groups

Corresponding Author:

Dr. Sonali Dilip Wairagade

Associate Professor, Department of Kayachikitsa,
Datta Meghe Ayurved Medical College Hospital and
Research Centre

e-mail: sonaliwairagade@gmail.com

Mobile No.: 982264461

and any socio-economic condition, it has predilection for children. In all types of medical therapies we get description about disease which is similar to Apasmar and treatment of the disease. But still this disease remains the challenge for the therapists^{3,4}. Through strong tranquilizers and sedatives of modern therapy are effective, they have adverse effect on mind. Hence an effective drug. Dilantin which is a drug of choice for all types of epilepsy is used by all Allopaths. In this study effects of Saraswat Churna in Apasmar are studied as against the allopathic drug Dilantin. In this study Saraswat Churna is used as a treated drug & Dilantin is used as a standard drug. This present thesis is an outcome of the above mentioned studies^{5,6}.

Material and Method

Selection of drug: Uptil now all the research work has been done on reinstate or reject whatever has been stated in the texts written thousands of years ago by the Acharyas.

There is no literature in which Saraswat Churna has been used up till now. According to Unmada Prakarma of Bhaishagiyaratnawali daily intake of Saraswat Churna causes potentiating of Budhi, Dharanashakti, Dhairya and Smurti sequentially. Apasmar is defined as transient expression due to derangement of memory, intelligence and mind. Therefore I decided to work over use of Saraswat Churna in Apasmar.

Vacha the main ingredient of Saraswat Churna according to Ayurved has Medhya, Sangyasthapana, Akshepsamak & Vedanasthapana action on central nervous system. According to Modern Science Vacha is Stimulant, antispasmodic & sedative in action.

Shankhpushpi according to Ayurved is Medhya, Balya for Brain & Nerves has Nidrajanana property.

Sunthi has stimulant & analgesic action.

Marich has antispasmodic & stimulant action on Nervous system.

Pippali is Stimulant & Medhya.

Ajamoda is balya for Brain & Central nervous system.

Kushtha is akshepsamak & avasadak.

Jeeraka is Vatanulomak & balya for brain.

Ashwagandhan is akshepsamak & analgesic.

After preparing churna of all twelve ingredients of 'Saraswat Churna' the mixture is given **Brahmi swarasbhavana** thrice. Brahmi is kaphavatshamak & has Apasmar & Unmadshamakprabhava. Brami is Kaphavatshamak & has Apasmar & Unmadshamakprabhava. Brami is also Medhya, Smaranshkti-wardhak (improve memory) Mastishka-Dharanashakti.

Thus according to Ayurved classics following are the qualities of the drugs used in 'Saraswat Churna' :- Antispasmodic, increases memory, tranquilises the over activity, sedative, hypnotic, brain tonic & Apasmarhara (antiepileptic).

Therefore I have used Saraswat Churna for my research work.

Dilantin (Diphenylhydantoin): This is a major drug in the treatment of a variety of epileptic seizures with the exception of petit mal. Dilantin is a drug of choice, used by all Allopaths. In this study effects of Saraswat Churna in Apasmar are studied against the allopathic drug Dilantin.

Therapeutic Uses: This is important drug in the T/t of grand mal epilepsy, psychomotor seizures. Drug often controls focal cortical epilepsy but does not completely abolish the seizure activity.

Materials and Method:

A. Settings: A total 30 patients of Apasmar were randomly selected for the present study, from the Kayachikitsa OPD of Pakwasa Samnwaya Hospital and Bajaj Anusandhan Centre, Nagpur.

B. Research design: A Randomized Control Trial

1. Participants:

- Patients – Diagnosed patients of Apasmar(Epilepsy)
- Gender-Both Male and Female
- Age- From 15yrs-75yrs of age.

2]. Sampling procedure:

Random sampling

Grouping:

Groups	No. of patients	Age	Sex	Intervention	Dose/day	Duration
Group A Study Group	15	15 yrs to 75 yrs	Male and Female	Saraswat Churna	1 gm t.d.s. with Honey	6 months
Group B Control Group	15	15 yrs to 75 yrs	Male and Female	Dilantin	100mg t.d.s. with Plain water	6 months

4. Sample size: Sample size was taken 30

5. Population: Patients of Apasmar(Epilepsy) were selected from O.P.D. of Pakwasa Samnwaya Hospital and Bajaj Anusandhan Centre, Nagpur.

C. Data collection tools and process: Patients fulfilling inclusion criteria and willing to give written consent will be enrolled for study. The selected patient will be informed about possible outcome and side effects of interventional drug.

a. Inclusion criteria:

- Subject is between 15 and 75
- Ability to provide informed consent (or assent if under the age of 18)
- Ability to keep accurate seizure diaries
- Subject had prior neuroimaging with report available
- Diagnosed patients of Apasmar

b. Exclusion criteria:

- Subjects with significant progressive disorders or unstable medical conditions requiring acute intervention
- Change in AED regimen in the last 28 days
- Subject is currently taking > 3 concomitant AEDs
- Subject has had status epilepticus within the past 2 years

c. Specific Investigations:

- Manas Parikshan
- E. C. G.
- CBC
- C. S. F. Examination

- X- Ray Skull

d. Assessment Criteria:

1. Severity of attack

- a. Grade 0: Myoclonic tremors
- b. Grade 1: Multi focal clonic tremors
- c. Grade 2: Generalized tonic tremors
- d. Grade 3: Frothing + tongue biting

2. Frequency of convulsion

- a. Grade 0: No convulsion
- b. Grade 1: 1 episode/15 days
- c. Grade 2: 1 episode/7 days
- d. Grade 3: 1 or more episodes/day

3. Duration of convulsion attack

- a. Grade 0: No convulsion
- b. Grade 1: 5–15 s
- c. Grade 2: 15–30 s
- d. Grade 3: >30 s

4. Ictal features

- a. Grade 0: No any features
- b. Grade 1: Headache
- c. Grade 2: Headache + drowsiness/delirium
- d. Grade 3: Paresis + other complaints

D. Methodology: This is a Randomized Control Trial. The study was conducted at O.P.D. of Pakwasa Samnwaya Hospital and Bajaj Anusandhan Centre, Nagpur of Kayachikitsa department, as per inclusion criteria.

Written consent will be obtained from each patient. Total 30 patients were selected and they were divided

in two equal groups by random sampling method using lottery technique.

Preparation of Drug:

A. Contents of Saraswat Churna: Saraswat Churna contains mainly 12 types of herbal drugs in which eleven ingredients i. e. Kushtha, Patha, Ashwagandha, Shankhapushpi, Shunthi, Maricha, Pippali, Jeeraka, Krishna jeeraka, Ajmoda and

Saindhav-lavana were taken in equal parts i.e. one part of each ingredient was taken and Vacha was taken in equal proportion of above drugs. Therefore eleven parts of Vacha & eleven parts of other drugs were taken. Fine powder of each ingredient was made by grinding method. Then the powder is mixed well after grinding. Then the mixture was given Brami Swarasbhavana thrice. And thus Saraswatchurna was ready for research work.

Comparative study of Rasa, Gun, Virya, Vipaka & Prabhava of contents of Saraswat Churna:

Table 1A

Name	Rasa	Guna	Virya	Vipaka	Prabhava	Doshagnata
Kushtha	Katu	LaghuRuksha Tikshna	Ushna	Madhura	-	Kaphavatahara
Vacha	Katu	Laghu Tikshna Sara	Ushna	Katu	Medhya	Kaphavatahara
Shankhapushpi	Kashaya Katu Tikta	Snighdha Guru Sara	Sheeta	Madhura	Medhya	Vatapitthara
Patha	Tikta	Laghu Tikshna	Ushna	Katu	-	Tridoshaghna
Jeeraka	Katu	Ruksha Laghu	Ushna	Katu	-	Kaphavatahara
Krishna Jeeraka	Katu	Laghu Ruksha	Ushna	Katu	-	Kaphavatahara
Ashvagandha	Tikta Kashya	Laghu Snigdha	Ushna	Katu	-	Kaphavatahara
Sunthi	Katu	Laghu Snigdha	Ushna	Madhura	-	Kaphavatahara
Maricham	Katu	Tikshna RukshaLaghu	Ushna	Katu	-	Kaphavatahara
Pippali	Katu	Laghu Snighdha	Ushna	Madhura	-	Kaphavatahara
Ajamoda	Katu Tikta	Laghu Ruksha Tikshna	Ushna	Katu	-	Kaphavatahara
Saindhalavana	Madhur	Swadu Laghu Anushna	-	Madhura	-	Tridoshnashak
Bramhi	Tikta Kashaya	Laghu Sara	Sheeta	Madhur	Unmada Shamaka Apasmar Shamka	Kaphavatahara

Table 1 B

Sr.No.	Gunas	Rasa	Vipaka	Virya
1	Laghu -12	Katu -7	Katu – 7	Ushna - 10
2	Ruksha - 5	Tikta - 5	Madhura - 6	Sheeta - 2
3	Tikshna – 5	Kashaya – 3		
4	Snigdha - 4	Madhura – 1		
5	Guru - 1			
6	Swadu - 1			

B. Dilantin: Dilantin which is a drug of choice for all types of epilepsy is used by all Allopaths. In this study effects of Saraswathurna in Apasmar are studied as against the allopathic drug Dilantin.

Statistical Data: In the present clinical study the response of Saraswathurna and Dilantin on 15 patients each was observed. The data collected during the course of study is recorded below.

Total no. of fifteen patients were treated by Saraswat Churna and fifteen patients were treated by Dilatin. The results obtained are represented graphically.

Table 2. Prakruti (According to Sharirik Dosha)

	Treated Group		Standard Group	
	No. of Patients	Percentage	No. of Patients	Percentage
Vata-pittaj	5	33.34	6	40
Vata-kaphaj	7	46.66	5	33.34
Pitta-kaphaj	2	13.33	2	13.33
Vata-pitta-kaphaj	1	6.67	2	13.33

Table 3. Prakruti (According to ManasikDosha)

	Treated Group		Standard Group	
	No. of Patients	Percentage	No. of Patients	Percentage
Satwik	1	6.67	2	13.33
Rajasik	12	80	10	66.67
Tamasik	2	13.33	3	20

Table 4. Duration of Illness

	Treated Group		Standard Group	
	No. of Patients	Percentage	No. of Patients	Percentage
1 to 5 years	2	13.33	1	6.67
5 to 10 years	5	33.34	7	46.66
10 to 15 years	6	40	6	40
15 to 20 years	2	13.33	1	6.67
Below 1 year	-	-	-	-

Table 5. Vataj Apasmar (12 Patients)

Symptoms/Signs	Treated Group		Standard Group	
	No. of Patients	Percentage	No. of Patients	Percentage
Kampa	4	44.44	3	33.33
Dantankhadan	7	77.77	8	88.88
Swasa	2	22.22	1	11.11
Visham Rudan	8	88.88	8	88.88
Udwamanthan Phenam	5	55.55	7	77.77
Abhikshanam Apasmaram	9	100	9	100
Ksheena Sanjanam Pratilabham	9	100	9	100
Anavasthitam Panipadam	8	88.88	7	77.77
Spurat Sakthih Pratatam Ka Muhurmuhurh	6	66.66	7	77.77

Table 6. Kaphaj Apasmar(11 patients)

Symptoms/Signs	Treated Group		Standard Group	
	No. of Patients	Percentage	No. of Patients	Percentage
Chirat Apasmaram	6	100	6	100
Chirat Sangyam Pratilabham	6	100	6	100
Patantam	4	66.66	5	83.33
Nativikrita-chestanam	5	83.33	4	66.66
Guru	3	50	1	16.66
Hrillasa	2	33.33	2	33.33
Nidarthah	6	100	5	83.33
Cheshtalpatha	6	100	6	100
Shuklagurusnighdharupadarshanam	4	66.66	3	50

Observation and Results

It has been opined in A.P.I. that a final say regarding the relief to the patient can only be given after the period of five years follow up. Therefore in the present study the assessment of the results of the treatment in the terms of cured, markedly improved etc. is avoided.

An assessment of severity of symptoms recorded before and after treatment is used here to evaluate the efficacy of the treatment

Group 1:

Total no. of patients was 15.

Disturbance of intelligence, memory & orientation had shown better results compare to other clinical features

Symptomatic relief in percentage is as follows:

1. Disturbance of intelligence – 68.75% relief.
2. Disturbance of Orientation – 66.34 % relief.
3. Disturbance of memory – 65.81% relief.
4. Tongue bite – 52.33% relief.
5. Sphurat Sakthihprantam, muhurmuhurh – 35.29% relief.
6. Shukla guru snighdharupadarshanam – 19.78% relief.
7. Vishamrudan – 18.18% relief
8. Dantankhadan – 15% relief
9. AsamanVilapam – 15% relief
10. Chestalpatha – 13.33% relief
11. Kampa – 12.05% relief

In Group 2:

The total no. of patients was 15.

In this Kampa, Dantan Khadan, Sphurat Sakthihprantammuhurmuhurh & seizure activity; drug had shown better results

Symptomatic relief in percentage is as follows:

1. Dantan Khadan– 78.28%
2. Kampa – 68.75%
3. Sphuratskhthihprantammuhurmuhurh -64.91%
4. Tongue bite-60%
5. Vishamrudan- 52.63%
6. Chestalpata – 44.44%
7. Asaman Vilapam-26.61%
8. Disturbance of intelligence- 24.44%
9. Shukla guru snighdharupadarshanam- 23.52%
10. Disturbance of Memory- 19.72%
11. Disturbance of orientation -19.04%

Therefore Saraswatchurna in following Clinical features is more effective than Dilantin:

1. **Disturbance of intelligence**-44.31% more effective than Dilantin.
2. **Disturbance of memory**-46.07% more effective than Dilantin.
3. **Disturbance of orientation**-47.30% more effective than Dilantin,

While in following Clinical features Dilantin; is more effective than Saraswatchurna:

1. **Dantan Khadan** – 58.28% more effective than Saraswatchurna.
2. **Khampa**- 56.25% more effective than Saraswatchurna.
3. **Visham rudan**-34.45% more effective than Saraswatchurna.
4. **Sphurat Sakthihprantammuhurmuhurh** – 29.72% more effective than Saraswatchurna.
5. **Cheshtalpata** - 21.11% more effective than Saraswatchurna.

6. **AsamanVilapam**- 11.61% more effective than Saraswatchurna.
7. **Shukla guru snighdharupadarshanam**- 03.74% more effective than Saraswatchurna.
8. **Tongue bite**- 7.67% more effective than Saraswatchurna.

Discussion

In this study entitled comparative clinical study of role of Saraswat Churna in Apasmar was conducted on 30 patients grouping them into two groups of 15 each (Treated group and Standard Group)^{7,8}.

Group A administered by Saraswat Churna treated group and group b administered by Dilantin standard group and clinical investigation conducted before and after the starting of the treatment with the above drug for a duration of six months. And the findings were recorded monthly intervals and comparison made between before and after completion of treatment. Maximum patients were between 20 to 40 years. Maximum patients i.e. 36.66% were belonging to 31-40 years and 26.66% were belonging to 41-50 years. Maximum patients were Male i.e. 60%. 73.33% of patients were married and 26.66% of patients were unmarried. Majority of patients were having mixed vegetarian diet i.e. 70%. 50% of patients were Businessmen. 70 % were of middle class. Addiction of alcohol is one of the precipitating causes of epilepsy. From 30 patients 11 were male had addiction of alcohol^{9,10,11}. 36.66% patients were of Vata-pittajprakruti, 40% patients were of vata-kaphajprakruti, 13.33% patients were of pitta-kaphajprakruti, 10% patients were of vata-pitta-kaphajprakruti. Prakruti indicated that Rajasik Prakruti were exhibited in majority of patients and disease is mainly caused by the predominance of Raja and Tama. 80% patients were having duration of illness from 10-20 years¹²⁻¹⁶. As Dilantin showed adverse reactions like urticarial like skin rashes, gastric irritation, resulting in nausea, vomiting, hyperplasia and hypertrophy of the gums noted in 90% of patients and these adverse reactions were not noted in patients treated with Saraswat Churna.

Conclusion

In Ayurveda system of medicine the diseases are classified according to Doshic predominance as well as signs & symptoms. In the present Clinical study a detailed description of Apasmar by various Ayurvedic Acharyas

and the trial drug Saraswatchurna is selected from an authentic Classical text. Saraswatchurna is compared with standard drug Dilantin by clinical symptoms and signs as recorded by Ayurvedic system, investigations in Apasmar patients to find out whether is superior or not in comparison to standard drug therapy.

The result of Saraswat Churna is insignificant.

Ethical Clearance: Taken from institutional ethics committee.

Source of Funding: Self.

Conflict of Interest: Nil.

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