



# Implication of Ayurveda in the Management of Apasmara (Epilepsy) – Case Study

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## Case Report

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## Abstract

Epilepsy affects 1% of the world's population a most common serious disorder of the brain, greatly impacting on the quality of life of affected individuals. In *Ayurveda*, the similar presentation is named as Apasmara has been explained with its aetiology, diagnosis and management. Imbalance in the three *Doshas Vata, Pitta, Kapha* singly or all of them together can cause *Apasmara*. Those aggravated *Doshas* get accumulated in Hridya and produce the features based upon *Doshika* predominance which cause illusion of the mind and visual hallucination and seizures (tonic spasms and clonic jerks) often it is presented with outwarding tongue, deviation of eyes, dribbling of saliva with froth, tonic and clonic movements of limbs. Even though medical world claims of the advancements in the management of *Apasmara* drugs don't work as they expect. The present Anti-epileptic drugs medication has so many drawbacks like adverse drug interaction and teratogenicity, cognitive impairment to an extent is also seen in some patients with epilepsy. An 18-year male patient arrived to the OPD and complained of seizure attack from last 6 years. The patient sought out *ayurvedic* treatment because he had tried numerous allopathic treatments but did not get significant result. With the *Ayurvedic* treatment, remarkable changes in the symptoms of Epilepsy were seen.

**Keywords:** *Apasmara*; Epilepsy; *Shamana Chikitsa*; *Shodhana Chikitsa*

## Introduction

*Apasmara* is explained as *Mahagada* [1], *Acharya Charaka* explained *Apasmara* as *Apagama* (loss) of *Smriti* (memory) associated with *Bibhatsta Chesta* (Irrelevant behavior) due to derangement of *Dhi* (thinking capacity) and *Satva* (mental strength) [2]. *Acharya Madhav* described as

a loss of *Smriti* characterized by *Tamah Pravesh* (feeling of aura) that happens spontaneously [3]. In *Apasmara* can be correlated with epilepsy in modern medicine.

The word epilepsy is derived from Greek word "Epilepsia" which means to "seiz" or to be overwhelmed by surprise. Epilepsy is a chronic disorder characterized

by recurrent seizures, which may vary from a brief lapse of attention or muscle jerks and prolonged convulsions [4]. The seizures are caused by sudden, usually, brief, excessive electrical discharges in a group of brain cells (neurons) [5]. In epilepsy, the normal pattern of neuronal activity becomes disturbed, causing strange sensations, emotions and behavior or sometimes convulsions, muscle spasms and loss of consciousness. Anything that disturbs the normal pattern of neuron activity from illness or brain damage to abnormal brain development can lead to seizures. A measurement of electrical activity in the brain with EEG as well as MRI or CT scan is the common diagnostic test for Epilepsy [6]. Antiepileptic medications suppress the seizure but do not cure the underlying conditions. They also have side effects, contraindications and occasionally require lifelong use. Although the strong tranquilizers and sedatives used in modern therapy are effective, they have negative effects on mind, therefore it is important to look for safe treatments those not only relieves the symptoms but also the underlying cause. *Acharya Charaka* has mentioned purification therapy as *Vamana* (therapeutic controlled emesis), *Virechana* (therapeutic controlled purgation) and *Basti* (medicated enema) along with palliative therapy as a line of treatment of *Apasmara* [7].

## Case Details

### Patient's Profile

- **Name-** xxxx
- **Age-** 18 year
- **Sex-** Male
- **Religion-** Hindu
- **Socio Economic Status** -Middle class
- **Occupation-** Student
- **Father-** Job in government sector
- **Mother-** Housewife
- **OPD No-** 677/5228
- **IPD No-** PW 4/15

**Chief Complaints:** Loss of consciousness, Jerky movements, Tachypnea, Fatigue after seizure attack since 6 years.

### History of Present Illness

An 18 Year old male Patient came to OPD of Panchakarma Reg no. 677/5228 Rishikul Ayurvedic hospital, Haridwar with a complaint of epileptic seizures, fatigue, and forgetfulness since 6 years. Past history revealed that he got injury in head at the age of 12 years then he suddenly felt jerk at night for around 5-8 minutes for which he got admitted in hospital and started with antiepileptic drugs. Instead of taking medicines he has seizure 6-8 episodes per week. Antiepileptic medicines were administered till 18 years of

age then they came to Rishikul Ayurvedic Hospital, Haridwar for further management.

### Family History

- **Paternal** -Grandmother suffered from same problem
- **Maternal**- Mother suffering from same problem

### Developmental History

- All milestones attained at appropriate time.

### Immunization History

- Given as per Schedule

### Treatment History

- Patient took allopathic treatment from Himalayan hospital jolly grant, Dehradun for 4 years (Table 1).

Name of Drug	Dose	Timing
Tab sodium valproate + valproic acid	200 mg	BD
Tab clonazepam	0.25 mg	OD
Tab calcium +VitD3	500mg	OD

**Table 1:** Medication took by patient.

### Personal History

- **Diet**-Vegetarian
- **Appetite**-Good
- **Bowel**-Clear, once/day
- **Micturition**-Normal, 4-5 time/day
- **Sleep**-Sound

### General Examination

#### Vital signs

- **HR**-72/min
- **PR**-70/min
- **RR**-18/min
- **BP**-110/80mmHg

#### Systemic Examination

- **Respiratory system:** Chest bilateral symmetrical, no added sound, chest sound clear
- **Cardiovascular system:** S1, S2 heard normal no murmurs
- **Per abdomen:** Soft, no any prominent veins, no any organomegaly

#### Central Nervous System Examination

- **Appearance**-Alert, active
- **Behavior**- Cooperative well mannered
- **Hallucination**-No hallucination during seizure episodes
- **Intelligence** – Normal
- **Consciousness**-Conscious
- **Memory** -Intact

- **Orientation** – Well oriented to place, person, time
- **Speech**-Slow speech
- **Cranial nerves** – All cranial nerves are intact
- **Cerebellar sign**-NIL
- **Signs of meningeal irritation**- NIL
- **Coordination**: Normal
- **Sensation**: Normal
- **Gait**: Normal
- **Muscle power**: 5/5 in all four limbs
- **Muscle Tone**: Normotonic

### Ashta Vidha Pariksha

- **Nadi** -72/Min
- **Mala** -Samyak
- **Mutra** - Samyak
- **Jihwa** -Saam (Lipta)
- **Shabda**-Anushnashita
- **Druk**-Samyak
- **Akruti** -Madhyama

### Investigation

- Investigation shows normal hematological and biochemical reports.
- The EEG Showed evidence of generalized tonic clonic epilepsy.

### Assessment Criteria

**Subjective:** For Subjective Assessment four symptoms will be kept as parameter [9].

### Severity of attack

**Grade 0**-Nothing

**Grade 1**-Multi focal clonic tremors

**Grade 2**-Generalized tonic tremors

**Grade3**-Frothing+tongue biting

### Frequency of Convulsions

**Grade 0**-No convulsions

**Grade 1**-1 episode/30 days

**Grade 2**-1 episode /15 days

**Grade3**-1 or more episodes/day

### Duration of Convulsion Attack

**Grade 0**-No convulsions

**Grade 1**-30 sec-1min

**Grade 2**-1 min-5min

**Grade3**->5 min

### Ictal Features

**Grade0**-No any features

**Grade 1**-Headache

**Grade 2**-Headache+drowsiness/delirium

**Grade3**-Paresis and other complaints

### Objective

- **Lab investigation:** EEG

### Diagnostic Criteria

- According to the international league against epilepsy [8]:
- At least two unprovoked seizures occurring >24 hours apart
- One unprovoked seizure and probability of further seizure like the general recurrence risk after two unprovoked seizures, occurring over the next 10 years.
- Diagnosis of an epilepsy syndrome.

### Treatment Plan

*Panchakarma* was planned for this patient after assessing strength, *Prakriti*, *Agni* etc. for better and further management. He had advised to come OPD weekly for regular follow up. After 20 days of oral medicine. He admitted in IPD of *Panchakarma* for further management.

### 1<sup>st</sup> Sitting

In first sitting internal medicine is given to patient for 20 days.

Duration of treatment for first sitting 20 days.

### Internal Medications (Table 2)

S.No	Drug/Formulation	Dose
1	Manas Mitra Vatak	2BD
2	Bhrami Vati Swarna Yukta	2BD
3	Saraswatarishta	20 ml BD

**Table 2:** Medication given in first sitting.

### 2<sup>nd</sup> Sitting

Patient is admitted to IPD and panchakarma treatment is planned. Firstly, *Deepana Pachana* is done followed by *Sarvanga Abhyanga* along with *Nasya* then after 7 days *Shirodhara* is done for 14 days. Total duration of treatment in second sitting is 26 days (Table 3).

S.No.	Treatment	Drug Used	Duration
1	Deepan Pachana	Panchakola Churna 3 gm BD	5 days
2	Sarvanga Abhyanga	Ksheera Bala Taila for Abhyanga	7 days
3	Nasya	Anu Taila for Nasya	
4	Shirodhara	Ksheera Bala Taila	14 days

**Table 3:** Medication and treatment given in second sitting.

### 3<sup>rd</sup> Sitting

In third sitting *Nasya* is done along with *Shirodhara* for 14

days total duration of treatment in third sitting is 14 days (Table 4).

S.No.	Treatment	Drug Used	Duration
1	Nasya	Kalyanaka Ghrita	7 days
2	Shirodhara	Ksheerabala Taila	14 days

**Table 4:** Medication given in third sitting.

Total duration of treatment is 60 days.

Follow up done after 1 month of treatment.

## Result and Discussion

Effect of *Panchakarma* therapy and *Ayurvedic* medicine on symptoms of Epilepsy (Table 4).

S.No	Assessment Criteria	Bt	At 1st Sitting	At 2nd Sitting	At 3rd Sitting
1	Severity of attack	2	2	2	1
2	Frequency of convulsion	3	2	1	1
3	Duration of attack	3	2	2	1
4	Ictal features	2	2	1	0

**Table 4:** analyzing data of three sittings of patient.

In above case patient got marked improvement from symptoms of *Apasmara* (Epilepsy) after *Panchakarma* in severity of attack, frequency of attack, duration of attack and post ictal features. *Panchakarma* treatment is the specialization of *Ayurveda*. *Deepana* and *Pachana* control the formation of *Ama* in the initial stage, which is very crucial for preventing the manifestation of the diseases. *Acharya Charaka* has mentioned *Shodhana* as a line of treatment so *Nasya*, *Abhyanga* and *Shirodhara* has been chosen and they showed good results.

### Mode of Action of *Kalyanaka Ghrita Nasya*

Among all *Snigdha Dravya Ghrita* is considered as best in *Ayurveda*. It is one of *Nitya Sevan* [10] (can be consumed daily) mentioned in *Ayurveda*. *Acharya Charaka* and *Acharya Vagbhata* have explained *Kalyanaka Ghrita* in *Apasmara Chikitsa* which contains 28 ingredients. Medicine instilled through *NASA* reaches *Sringataka Marma* and distributes all over the brain opening vessels of eyes, ear, throat etc. Nasal route is easily accessible, convenient and reliable with a porous endothelial membrane and a highly

vascularized epithelium that provides a rapid absorption of compounds into the systemic circulation, avoiding the hepatic first pass elimination. Blood brain barrier (BBB) has a lipophilic molecular structure, as *Ghrita* contains DHA, an omega 3 long chain polyunsaturated fatty acid, which are high concentration in brain cells too. *Ghee* is known to have antioxidant property which acts upon the degenerative brain cells and repair them.

### Mode of action of *Shirodhara* with *Ksheerabala Taila*

*Shirodhara* is a type of *Murdhni Taila* where pressure and vibration are created over the forehead and this vibration is amplified by hollow sinus present in the frontal bone. The vibration then transmitted inwards through the fluid medium of the cerebrospinal fluid (CSF) and thus this vibration along with little temperature may activate the function of thalamus and basal forebrain which then brings the amount of serotonin and catecholamine to the normal stage inducing the sleep. Due to continuous and rhythmically pouring of

*Taila Dhara* also lead to state of concentration and enhance the release of serotonin and produces chemical substance like acetylcholine. *Ksheerabala Taila* is being utilized as a *Rasayana* drug in *Ayurveda* Treatment. The continuous administrations of this formulation prevent the release of abrupt electrical discharge and improve the physical and mental condition of the patients. It has profound soothing and relaxing effect on mind.

### Conclusion

Epilepsy is a clinical syndrome affecting central nervous system. It influences the physical, psychological, familial and occupational life of a person. In this case study treatment was planned on the basis of treatment of *Apasmara* which are mentioned in classics. Now Patient feels better, comfortable at his work, the frequency of seizure attack is reduced and patient is under follow up.

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