



# Management Of Apasmara (Epilepsy) With Ayurvedic Regimen Along With Antiepileptic Drugs In Children: A Case Study

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**ABSTRACT:** *Apasmara* (Epilepsy) comes under the group of *ShareermanoAdhisthathaManasikvikara* (body and mind disorder) which is defined as the *apagama*(loss) of *smriti*(memory) associated with *bibhasthachestha* (irrelevant behaviour) due to derangement of *dhi* (thinking capacity) and *satva* (mental strength). The modern available antiepileptic drugs control the seizure attack, but long term use of them generates adverse reaction at cognitive level and leads to behavioural disorder and also affects mental health of children and adolescent which are the big issues now-a-days. Therefore, today's era there is need of safe and effective treatment which not only controls the seizure attack but also help to improve quality of life, least or no side effects and also cures the disease. 6yrs old male child approached *Kaumarbhritya* (paediatric) OPD with complaints of frequent seizure attacks, headache since from at the age of 4 yrs. with regular oral antiepileptic drugs medication (allopathic), Parents are not satisfied with treatment and feel worried about their side effects. So, he was advised with *Ayurvedic* regimen that is *ChaturbhujRas* (*Raskalpa*) and *PratimarshNasya* with *Vacha- Shampakadighrita* along with antiepileptic drugs. After treatment child had significant relief from some symptoms of Epilepsy. The frequency of attack, severity and duration of seizure attack was found to be reduced and improved quality of life. *Ayurvedic* management found some kind of beneficial in this case.

**KEYWORD:** *Apasmara*, Epilepsy, Antiepileptic Drugs, *PratimarshyaNasya*, *Rasaushadhi*.

## INTRODUCTION:

The term '*Apasmara*' is a combination of two words viz. *Apa* means *Parivarjana* i.e. loss<sup>[1]</sup> and *smara* means '*smriti*' i.e. ability to remember, recollect.<sup>[2]</sup> According to *MadhavaNidanaApasmara* described as loss of *smriti* characterized by *tamahpravesh* (feeling of aura) which occurs spontaneously.<sup>[3]</sup> *Apasmara* comes under the group of *ShareermanoAdhistithaManasvikara*, mainly related to *vata* and *rajadosha*

vitiation, which effects both *sharira* (body) and *Mana* (mind).<sup>[4]</sup> Epilepsy derived from a Greek term '*Epilmbanai*' which means to take hold of, to grab or to seize.<sup>[5]</sup> Epilepsy is a chronic disorder of the brain characterized by recurrent seizures. Seizures are sudden, uncontrolled episodes of excessive electrical charges of the brain cells with associated, sensory, motor and behavioural changes.<sup>[6]</sup> *Apasmara* is a psychosomatic disorder and it is explained as *Mahagadha*.<sup>[7]</sup> Seizures are the most common paediatric neurological disorder. 5% of children suffer at least one seizure in the first 16 years of life. The incidence is higher in children less than 3 years of age with decreasing frequency in older children. Epidemiologic studies reveals that approximately 150000 children will sustain first time unprovoked seizure each year and of those, 30000 will develop epilepsy.<sup>[8]</sup> A measurement of electric activity in the brain with EEG as well as MRI or CT scan is the common diagnostic test for epilepsy.

An antiepileptic drug suppresses the seizures but do not cure the disorder and having serious adverse effects and sometimes requires lifelong treatment.<sup>[9]</sup> s children are in growing period of life, have frequent attacks of seizures, larger doses of anti-epileptic drugs, may affects the ability to learn. It can lead to impaired growth and development and poor quality of life. Poor school performance not only result in child having low esteem, but also cause significant stress to parents and nation.<sup>[10]</sup> Though strong tranquilizers and sedative of modern therapy are effective they have adverse effect on mind, it is in need to search for safe treatment which not only relieves the symptoms but to cure. *Nasya* has some unexpected benefits like greater clarity of mind and a calmer nervous system. Nose is the gateway of the head spreading through this. Nasal medication reach all the parts of the head and cure diseases.<sup>[11]</sup> *PratimarshNasya* is the kind of nasal medicine id good from birth to death and totally safe for children.<sup>[12]</sup> *Rasaushadhis* have an upper hand due to it's quicker action and lees dosage. By use of these in combination one can not only control but also manage the diseases well.

#### CASE STUDY :

**Patient's History** – A 6 years old male patient came to Kaumarbhritya OPD with complaint of epileptic seizures around 1-2 times in a week for about 1-3 minutes, on average 8-10 episodes every month, Lasting for >1 minutes, lower limb hypotonic, unable to speak clearly, sometimes confusion, etc. Receiving allopathic treatment but willing to take *Ayurvedic* management. Hence He was brought by his parents to Kaumarbhritya OPD for further management.

**Past History** – Past history revealed that the patient suffered from high grade fever (unknown) when he was 3.5 years old. Fever subsides after taking medication but after 3 to 5 days patient having H/o falling while playing and got head injury, he experienced his first attack of seizures at that time. He got admitted in hospital and started with antiepileptic drug. He also had H/ o dog bite and successfully completed the treatment of it.

**Family History** – There is no familial history of epilepsy and not a consanguineous marriage of his Parents.

**Drug History** -Patient was taking anti-epileptic drugs along with multi-vitamins as given below

Table no. 1- anti-epileptic drugs along with multivitamins.

Sr. No.	Drug Name	Dose	Timings
1	Syrup. Sodium valproate 200mg/5ml	270mg	BD (3.5ml)
2	Syrup Phenytoin 125mg/5ml	144mg	BD(3 ml)
3	Syrup Calcium + Vitamin D <sub>3</sub>	5ml	BD
4	Syrup Multivitamin	5 ml	OD

### Birth History –

1. Antenatal – Nonspecific
2. Natal – Term caesarean delivery at hospital, baby cried immediately after birth , with birth weight 2.5 kg
3. Post Natal – Icterus developed after 3 days and subside with phototherapy.

Immunization History - All vaccines are given as per age.

### General Examination -

- Pulse – 84/min
- BP -100/60 mmHg
- Temperature – 99.1<sup>0</sup>F
- RR – 22/min

### Anthropometry -

- Height -115 cm
- Weight – 18 kg
- Head circumference - 44 cm
- Chest circumference – 50 cm
- Mid arm circumference – 14 cm

### Systematic Examination-

- Respiratory system – AEBE clear
- Cardio-vascular system – S<sub>1</sub>S<sub>2</sub> Normal
- Gastro- intestinal system – soft and non- tender
- Central nervous system examination
  - ❖ Appearance – active and alert
  - ❖ Consciousness – conscious
  - ❖ Behaviour – Co-operative
  - ❖ Memory – intact
  - ❖ Orientation – oriented to place and person H/o confusion after seizure attack
  - ❖ Speech – slow and unclear speech
  - ❖ All cranial nerve – intact
  - ❖ Signs of meningeal irritation – Nil
  - ❖ Motor system – Both lower limbs hypotonic
  - ❖ Sensory system – No deformity found

## AshtavidhaPariksha –

- *Nadi* - 84/min
- *Mala* – sama, regular
- *Mutra* – samyak
- *Jivha* – saam
- *Shabdaa* – unclear, slow (*aprakrut*)
- *Sparsha* – anushnashita(99.1<sup>0</sup>F)
- *Druk* – prakrut
- *Akruti* – madhyam

Investigation show normal haematological and biochemical reports. The EEG showed evidence of generalized tonic clonic epilepsy, slowing of bilateral waves.

## Diagnostic criteria –

1. Clinically based on signs and symptoms
2. EEG

## Assessment Criteria :Table no. 2 Assessment Criteria

Sr no.	Criteria	Grade 0	Grade 1	Grade 2	Grade 3
1	Severity of attack	No attack	Momentary loss of consciousness without falling or sudden clonic contraction of groups of voluntary muscles without gross disturbance of consciousness.	Loss of consciousness with falling and mild convulsions generalized tonic tremors	Loss of consciousness and falling with rapid extension and flexion of limbs resulting in tongue bite and incontinence of urine and stool
2	Frequency of convulsion	No convulsion	1 episode / 15day	1 episode / 7 days.	1 or more episodes / day
3	Duration of convulsion attack	No convulsion	5-15 sec	15-30 sec	>30 sec
4	Phenavamana	No frothing	Frothing from mouth	Excessive frothing from mouth	-
5	Tongue bite	Absent	Present in 25% of occasion	Present in 50% of occasion	Present in all occasion
6	Incontinence of urine	Absent	Present in 25% of occasion	Present in 50% of occasion	Present in all occasion
7	Incontinence of stool	Absent	Present in 25% of occasion	Present in 50% of occasion	Present in all occasion
8	Cyanosis	Absent	Present in 25% of occasion	Present in 50% of occasion	Present in all occasion
9	Post ictal	Absent	Present just after	Present 1-2	Present 1-2



	features		the attack	hours after attack	days after attack
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Methodology :*Ayurvedic* treatment was given with on-going AED. Assessment and fallow up was done on 1<sup>st</sup> day and 30<sup>th</sup>, 60<sup>th</sup>, 90<sup>th</sup> day.

Table No.3 :*Ayurvedic* treatment plan

Name of Treatment	Drugs	Anupan	Dose	Time of administration
<i>PratimarshNasya</i>	<i>Vacha-ShampakdiGhrita</i> <sup>[13]</sup>	-	2 drops	Morning (OD)
<i>Raskalpa</i>	<i>ChaturbhujRas</i> <sup>[14]</sup>	Lukewarm water	Calculate according to the age of children by Young's Formula	Morning after food (OD)

Above treatment was given for 3 months and the patient was told to provide fallow up on every month till 3 months. Criteria were assessed on 30<sup>th</sup>, 60<sup>th</sup> and 90<sup>th</sup> day.

Assessment Criteria –

The assessments were done before treatment, at the end of one month, at the end of 2 months, at the end of 3 months. It is based on the given parameters.<sup>[16]</sup>

Table No. 4: Effect of *Ayurvedic* treatment on symptoms of Epilepsy.

Sr. No.	Assessment Criteria	On 1 <sup>st</sup> day (before t/t)	After 1 month of fallow up	After 2 months of fallow up	After 3 months of fallow up
1	Severity of attack	Grade 2	Grade 2	Grade 2	Grade 1
2	Frequency of convulsion	Grade 2	Grade 2	Grade 2	Grade 1
3	Duration of convulsion attack	Grade 3	Grade 2	Grade 2	Grade 2
4	Phena-vamana	Grade 1	Grade 1	Grade 0	Grade 0
5	Toung bite	Grade 2	Grade 1	Grade 1	Grade 1
6	Incontinence of urine	Grade 2	Grade 2	Grade 1	Grade 1
7	Incontinence of stool	Grade 2	Grade 1	Grade 1	Grade 0
8	Cyanosis	Grade 1	Grade 0	Grade 0	Grade 0
9	Post- ictal features	Grade 2	Grade 1	Grade 0	Grade 0

**RESULT AND DISCUSSION:**

*PratimarshaNasya*<sup>[17]</sup> :- *Pratimarshanasya* can be given daily and even in all the seasons at morning and evening . Two drops in each nostril at *nasyakala*.<sup>[18]</sup> The *sneha* (ghee) should at least reach from *nasa* (nose) to *kantha* (throat), but it should not be too much that could produce secretion in *kantha* (throat).

**Mode of Action of Nasya Karma :** According to *AcharyaCharakanasa* (nose) is the portal (gateway) of *shirah* (head), The drug administered through nose as *nasya* reaches to the brain and eliminates only the morbid *doshas* responsible for producing the disease.<sup>[19]</sup> In *AshtangaSamgraha*, it is explained that *nasa* (nose) being the door way to *shira* (head), the drug administered through nostril; reaches *shringataka* (a *siramarma* by *nasasrota*) and spreads in the *murdha* (brain) taking route of *netra* (eye), *shrota* (ear), *kantha* (throat), *siramukhas* (opening of the vessels), etc. and scratches the morbid *doshas* in supra clavicular region and extracts them from the *uttamanga* (head).<sup>[20]</sup> It is an experimentally proven fact that where any type of irritation takes place in any part of the body, the local blood circulation is always increased. This is the result of natural protection function of the body. Something happens when provocation of *doshas* takes place in *shirah* due to irritating effect of administered drug, which results in an increase of the blood circulation of brain. So extra accumulated morbid *dosha* (toxins) are expelled out from small blood vessels and ultimately these morbid *doshas* are thrown out by the nasal discharge, tear and by salivation. Nasal route is easily accessible, convenient and reliable with porous endothelial membrane and a highly vascularized epithelium that provides a rapid absorption of compounds into the systemic circulation. Intranasal drug delivery enables dose reduction, increase blood circulation of brain, quicker onset of pharmacological activity and fewer side effects. The nasal delivery seems to be direct drug deliveries which bypass blood- brain barrier (BBB) in central nervous system.<sup>[21]</sup>

**Vacha- ShampakadiGhrita :-** *Vacha- Shampkadighrita* explained by *AcharyaCharaka* in the context of *Apasmara*. It is an *Ayurvedic* formulation which contains *ghrita* (cow ghee), *vacha*, *shampaka*, *kaitarya*, *vayastha*, *hingu*, *choraka*, *guggulu*. *Ghrita* is lipid helps the medicine to pass easily through blood brain barrier. So, the drugs which are given in the form of medicated ghee which are lipid rapidly absorbed in the target areas of central nervous system, *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. *Vacha* in Sanskrit means speaking clearly, it stimulates intelligence and expression. *Vacha* is known as rejuvenating herb because of its effect on the nervous system, *medhya* properties. *Shampaka* have anti- inflammatory and anti- pyretic action. It is analgesic by *vatahar* property, so useful in *vata* disease. *Bramhi* is *rasayana* drug having neuro-protective and anti-oxidant property. *Vacha- shampakadighrita* neuroprotective offers protection against convulsions.

**ChaturbhujRas :-** It is a *rasaushdhi* described in *Bhaishajyaratnavali* for the management of *Apasmara*. It contains gold *bhasma*, which is nervine tonic, it is also extremely useful in rectifying memory flaws and reduce inflammation in the brain while also supporting and improving brain health. *Rasa- aushdhis* are so potent that their *alpamatra* (minutes doses) can induce effective response. These drugs assimilated inside the body so quickly due to their unique characteristics. Dosing flexibility, long shelf life, fast onset of action and efficacy, etc. are major advantage associated with *rasa-aushadhis*.

**CONCLUSION:**

Epilepsy is most common paediatric neurologic disorder which totally affects central nervous system and their function. It influences child's physical, psychological, familial life. It increases mental burden for parents also. Present case treated with *Ayurvedic* regimen i.e. *pratimarshanasya* and *rasa-aushadhi* along with AED which didn't show any adverse effect. Though patient have not full recovery but show some kind of significant effect. After full treatment of 3 months shows some improvement in symptoms of epilepsy, no side effect with these drugs. An *Ayurvedic* treatment along with AED is effective in managing epilepsy in children and improves quality of life and school performance.

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