



Case Study

AN AYURVEDA CASE STUDY ON GTCS W.S.R TO APASMARA ROGA

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ABSTRACT


The word 'Epilepsy' is derived from Greek meaning- 'to seize upon'. The disease *Apasmara* is diagnosed based upon shrewd observation of the symptoms, with the main presenting feature of this disease as "Apaya (loss) of *Smriti* (memory)" i.e., 'loss of memory/ consciousness'. *Apasmara* occurs due to an aberration of not only the physical bio-entities *Vata*, *Pitta* and *Kapha dosha* but also of the psychological (*Manasika*) attributes like *Sattva* (harmonious), *Rajah* (passion/activity), and *Tamah* (inertia/ignorance). It is presented with transient appearance of unconsciousness (*Tamah Pravesha*) with abhorrent activities like froth from mouth, abnormal postures of the body (*Vibhatsa Cheshta*, referring to the involuntary movements during the seizures) and psychological symptoms like perversion of memory and cognition (*Smriti-buddhi Samplava*). Here the case was pre diagnosed with GTCS (generalised toni-clonic seizures) having symptoms such as decreased memory, epileptic attack 3 months ago which impersonates with *Vataja Apasmara*. So, in this case study an effort is made to correct the cause and the epileptic attacks with other associated symptoms by giving oral medications having predominantly *Vata Shamak* properties as well as *Shodhana Chikitsa* (*Nasya*).

INTRODUCTION

In Ayurveda, *Mana* has various important functions among which *Indriabhigraha* is one of the important meaning perception and motor control, it refers to proper function of *Jnanendriyam* and *Karmendriyam* in the absence of any defects in '*Indriyam*' (cerebral organic factors-central) or '*Indriyadhishtanam*' (sensory and motor organs-peripheral), so in this case the main cause was the triggering factor (*Atiyoga* of *Shabda*) to the *Karnendriyam* which lead to indecorous functioning of *Manas* thus, leading to condition of *Apasmara* due to vitiation of mainly *Vata dosha* in *Shabdavaha nadi*. *Manovikara* generally refers to an abnormal condition of mental functions which is characterised by impairment of *Manokarma*, *Indriyabhigraha*, *Manobhigraha*. Etiological factors of *Apasmara*

described in different texts can be distributed into dietic (*Aahara*- unfavourable, uncleaned food), behavioural (*Vihara*- inadequate body movements, abstaining the Vegas, etc), psychological (*Manasika*- excessive stress, mental strain etc) and others (misc-increasing debility, trauma etc).

Generalized seizures can be classified as atonic, tonic, clonic, tonic-clonic, myoclonic, or absence on the basis of EEG abnormalities and clinical symptoms. Tonic seizure is the rigid constriction of muscles, including respiratory muscles, which is usually concise. The clonic part is the rhythmic shaking that occurs and is longer. Together, a generalized tonic-clonic seizure (GTCS) is also called a GRAND MAL seizure and is one of the most theatrical of all medical conditions. Grand mal seizures are basically brainstem derived seizures which are seen more commonly in childhood, adolescence and adulthood as well in which tonic episode is followed by clonic component. Common premonitory symptoms include headache, mood change, anxiety, irritability, lethargy, changes in appetite, dizziness, and light-headedness.^[1]

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Sometimes, generalised focal seizures can be evoked by external stimulations like loud noise, music, flashing light.^[2] A seizure is an abnormal paroxysmal discharge of cerebral neurons due to cortical hyperexcitability. The new International Classification of Seizures divides seizures into 3 categories: generalized onset, focal onset (formerly partial seizures) and unknown onset. Tonic-clonic seizures are characterized by clonic or myoclonic movements evolving to tonic extension of trunk muscles and limbs followed by clonic contraction. Often these seizures are accompanied by biting of the tongue and urinary incontinence.

The awake EEG of patients with generalized tonic-clonic seizure may be normal. Hyperventilation, photic stimulation, sleep-deprivation and/or prolonged EEG can increase the likelihood of finding an abnormality on EEG.

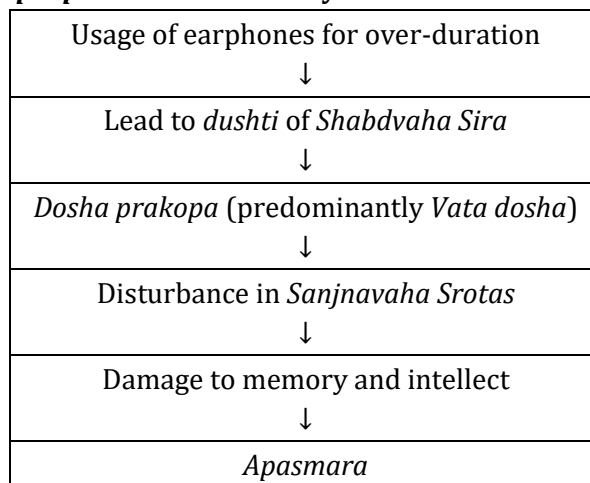
Case Report

A male patient of 18 years came to OPD of Kayachikitsa of Patanjali Ayurveda Hospital, with a diagnosed case of GTCS with complaints of first epileptic episode on 25th January 2023-1 (One) time which occurred after whole night insertion of earphones with audio and second episode of seizure on 31st January 2023- 2 times with abnormal EEG

changes which denoted abnormality in the form of generalised epileptiform discharges.

Seizures were associated with features of tongue biting, saliva drooling from mouth corner, unconsciousness for 10-20 seconds, memory loss.

Samprapti in this case study^[3]



MATERIAL AND METHODS

The patient was prescribed with the following *Sanshaman chikitsa* for 4 months in regular period -

S. No	Aushadhi	Matra	Anupana	Sevan kala
1	<i>Medha kwath</i>	100 ml X BD	-	Empty stomach
2	Combination of <i>Shankhapushpi churna + Mulethi churna + Rajat bhasm + Shira-shuladi Vajra rasa + Makardhwaj</i>	1-1 tsf X BD	With honey	15 minutes Before meals
3	<i>Brahmi Ghrit</i>	Melted 1 tsf	With milk	At bedtime

DISCUSSION

Samshodhana

Shirovirechana: It is the specialty of Ayurveda that without piercing the body of patient, drug delivery can be done using different means^[4] *Shirovirechan* is considered as one of the *Panchkarma* procedure which directly affects the brain through *Nasagata Nadis*, so here the drug was instilled in each nostrils affecting the brain cells and cognitive function of the brain.

Badam Rogan: Instilling 4-4 drops in each nostril after *Poorva karma* i.e., proper massage around the face and neck, followed by *Dhoopana karma*.

Badam Rogan- Almond oil, the almond is highly beneficial in preserving the vitality of the brain, in strengthening the muscles and in prolonging life.^[5] *Vataada* (almond) is *Ushna* (hot) in potency with *Madhur vipaka* and also a brain booster thus helped in pacifying imbalanced *Vata dosha* in this case study.^[6]

Samshamana

1. **Medha kwath** - Comprises of *Medhya aushadhi* such as *Brahmi, Shankhpushpi, Vacha, Gajva, Malakangani, Ashwagandha, Shatpushpa, Pushkarmoola* which together possess best combination for relieving headache with anti-depressant properties. It also corrects the imbalance in neurotransmitters as seen in epilepsy.

In ancient Indian writings, many herbal substances have been suggested to improve CNS functioning; examples include *Brahmi (Bacopa monnieri), Jal-Brahmi (Centella asiatica), Ashwagandha (Withania somnifera)* and others.^[7]

2. Combination of *Shankhapushpi churna + Mulethi churna + Rajat bhasma+ Shira-shuladi Vajra rasa + Makardhwaj*

Shankhpushpi churna- According to *Acharya Charak, Shankhpushpi* is one of the best "*Medhya drug*" in

Medhya Rasayana. It is utilized in *Vishachikitsa* (toxicity), *Apasmar Chikitsa* (epilepsy) and *Bhootchikitsa* (psychological diseases).^[8]

The plant is suggested to have anxiolytic, anti-depressant, nootropic, anti-stress, anticonvulsant, sedative and tranquilizing properties.^[9]

Mulethi churna- Yashti is another widely used nootropic (*Medhya rasayana*) and forms an integral part of several formulations. The aqueous and ethanolic extracts of *G. glabra* demonstrated anticonvulsant activity and ameliorated oxidative stress in PTZ-induced seizures.^[10]

Glycyrrhizin, the triterpene present in the roots and rhizomes, has potential neuroprotective benefits by its anti-inflammatory and anti-excitotoxic effects.^[11]

Rajat Bhasma, is also known to be *Apasmarhar*, *Unmadahar*, *Smritikar*, *Medhyakar*, *Bhramhara* by various *Ayurveda Acharya*. It is also reported that silver nanoparticles reduce the brain inflammation and related neurotoxicity through induction of H₂S synthesizing enzymes.^[12]

3. Brahmi Ghrit: *Brahmi* is known for its *Medhya* properties which are most widely used drug. Traditionally, it is used as a memory enhancer. *Ghrit* is considered as *Pitta Vata Shamak* and is *Yogavahi* in nature, which takeover the effect of the *Aushadhi* through which it is processed.

Adjuvant Therapy

Studies have shown that practice of yoga stimulates the central nervous system to release endorphins, monoamines and brain derived neurotrophic factor (BDNF) in the hippocampus. It also decreases cortisol levels by increasing melatonin production and improves physical and mental health through down regulation of the hypo-thalamo-

pituitary-adrenal axis and the sympathetic nervous system. These poses are *Balasana*, *Kapotanasana*, *Uttanasana*, *Matsyasana*, *Pavanamuktasana*, *Halasana*, *Savasana*.

Also, the practice of *Nadi shodhana Pranayama* helps to restore normal respiration, which can reduce the chances of going into a seizure or stop the seizure before it becomes full blown.

Dhyana (meditation): Stress is a well-recognized trigger of seizure activity. Meditation improves blood flow to the brain and regulates the production of stress hormones. It also increases the levels of neurotransmitter, like serotonin, which act as definitive aid in seizure control.^[13]

It is known that through meditation, significant decrease in concentration of arterial lactate (the apparently stress related blood chemical) which is nearly about 4 times, cellular activity slows down, improves persons adaptability and resistance to stress.^[14]

Bhramri Pranayama was also one of the beneficial *pranayama* in relieving stress, tension, anxiety, insomnia, anger and blood pressure too.

RESULT

In this case study, we found that intervention of different *Rasaushadhis* along with herbo-mineral compounds gave positive results in improving mental function and episodes of epileptic attacks with marked improvement in EEG.

Along with *Shaman Aushadhis*, *Shirovirechan* was advised on regular basis. The *Shloka* says – “*Nasa hi shirsodwaram*” (A.S.SU.29/3)^[15] as the pathway of nostrils are the brain itself which is told by many *Acharyas*. The before and after effects of EEG are attached below -

	Before Treatment	After Treatment
Date	24/01/2023	08/08/2023
EEG Changes	Abnormal EEG Record , Abnormality in the Form of Generalised Epileptiform Discharges	Normal Awake EEG Record

CONCLUSION

This case study concludes that on giving *Samshaman* and *Sanshodhan chikitsa*, episodes of seizures can be controlled and handled with proper diet regimen under proper observation. *Shirovikaras* should be taken care of with early management as it is considered as one of our ‘*Trimarmas*’ – (*Shira*, *Hridaya*, *Bastij*) basic authoritative organ of the body. *Nasya* plays important role in treating *Shirovikaras*.

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