



AYURVEDIC APPROACH IN LIMBIC ENCEPHALITIS AN AVARANA JANYA VATAVYADHI: A SINGLE CASE REPORT

Ayurveda

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ABSTRACT

Limbic encephalitis (LE) is a rare neuroinflammatory disorder affecting the hippocampus, amygdala and medial temporal lobes presenting with memory loss, confusion, seizures, psychiatric symptoms, behavioural disturbances and autonomic dysfunction. It may be paraneoplastic or autoimmune and untreated cases can progress to severe disability. Conventional management includes immunotherapy and tumour-directed treatment though chronic cases often remain refractory. In Ayurveda, LE correlates with Avarana Janya Vatavyadhi with Kaphanubandha where vitiated Vata obstructed by Kapha impairs mental and neurological functions. Management involves Rookshana, Snehana, Brahmana and Vyadhi-Viparita Chikitsa through Panchakarma and internal medicines. A 26-year-old female with limbic encephalitis presented with five years of memory loss, slurred speech, abnormal behaviour, incontinence, and walking difficulty. Ayurvedic management with internal medicines and Panchakarma therapies improved cognition, behaviour, and physical function. MMSE rose from 10 to 21, CASE score reduced from 12 to 7, without adverse effects. Ayurvedic management demonstrated promising benefits in cognition, behaviour, autonomic regulation and quality of life in chronic LE. This case highlights meaningful functional progress through integrative therapies. However, absence of a control group and possible confounders remain limitations. Larger controlled studies are needed to validate these encouraging outcomes.

KEYWORDS

Limbic encephalitis, Avarana, Vatavyadhi, Panchakarma, Ayurveda

INTRODUCTION

Limbic encephalitis (LE) is a rare but important **neuroinflammatory disorder** characterized by subacute onset of **neuropsychiatric symptoms**, such as **memory impairment, confusion, seizures, abnormal behaviour, and mood disturbances**. Involvement of the **hippocampus, amygdala, and medial temporal lobes** is typical, leading to progressive **cognitive and behavioural dysfunction**.^[1]

LE can occur as a **paraneoplastic syndrome** associated with tumours such as small cell lung cancer, testicular tumours, or thymoma, or as an **autoimmune disorder** mediated by antibodies against neuronal cell-surface or intracellular antigens.^[2] The most frequently implicated antibodies include **anti-Hu, anti-Ma2, anti-LGI1, anti-CASPR2, and anti-NMDA receptor antibodies**.^[3]

The disease predominantly affects **adults in middle age**, though it can occur at any age. Both sexes are affected, with no strong gender predisposition.^[4] The **global prevalence** of LE remains low, but cases have been increasingly recognized due to advances in **autoantibody testing and neuroimaging**.^[5]

If untreated, LE may progress to **severe cognitive decline, refractory seizures, and long-term disability**, substantially impairing **quality of life**. Early recognition and **prompt initiation of immunotherapy** or **tumour treatment** in paraneoplastic cases are crucial for improving clinical outcomes.^[6]

Limbic encephalitis: Ayurvedic View

In limbic encephalitis (LE), the main complaints include memory impairment, confusion, disorientation, psychiatric symptoms, seizures, sleep disturbances, and autonomic dysfunction. These features resemble *Avarana janya Vatavyadhi*—specifically *Anyonya Avarana* and *Kaphavruta Vata*. *Avarana* in Ayurveda refers to obstruction or enveloping, where the free flow of Vata is blocked by Pitta, Kapha, Dhātu, Ahara, or Mala. This obstructed Vata leads to various disorders termed *Avarana janya vyadhis*. Since LE primarily affects *Vata* functions, its symptomatology aligns closely with descriptions of *Anyonya Avarana* and *Kaphavruta Vata* in *Caraka Samhita* and *Ashtangahrudaya*, making Ayurvedic correlation relevant.

Symptoms of Avarana Vs Limbic Encephalitis

Smruti Kshayam- Memory impairment, *Moorcha Tantara* - Confusion and Disorientation, *Sarvendriyanam Soonyatwam*- Psychiatric symptoms, *Skalitham cha gatou Brasham*- Movement Abnormalities, Seizures, *Vakswaragraham*-Speech Disturbances, *Swedo athyaratham*-Autonomic Dysfunction. Limbic Encephalitis may be approached initially as *Avarana*, and in later stages, *Vata vyadhi chikitsa* is to be adopted. Here in case of LE, the protocol includes *Rookshana, snehana* and *Vyadhi vipareetha chikitsa*.

CLINICAL PRESENTATION WITH HISTORY

A 26-year-old unmarried female from Maharashtra attended the OPD with her brother and mother. She presented with memory loss, slurred speech, abnormal behaviour (unwanted smiling, making noise, poor response to name call, lack of eye contact), bowel and bladder incontinence, weakness, and walking difficulty persisting for five years. Previously active, extroverted, and employed as a teacher preparing for UPSC exams, her illness began during the COVID-19 pandemic in 2020, when excessive concern for family health coincided with onset of symptoms. In June 2020 she was diagnosed with depression and started medication. In July 2020 she overdosed, was hospitalized, remained unconscious for 10 days, and was diagnosed with limbic encephalitis (LE). After recovery from the acute phase, she developed slurred speech, progressive memory loss, abnormal behaviour, walking difficulty, weakness, and incontinence. By August 2020 she improved and could walk, but worsened after a fall in January 2021 that resulted in loss of front teeth. She continued allopathic treatment until 2023, then was admitted to the Government Ayurveda Research Institute of Mental Health and Hygiene, presenting with inappropriate laughter, poor eye contact, and reduced attention span. After two months of Ayurvedic therapy, she showed slight improvement in pronunciation and could express basic needs. Subsequently, she continued Ayurveda treatment in Maharashtra, and in December 2024 and July 2025 was admitted at VPSV Ayurveda College, Kottakkal, for 35 days, where she underwent further management.

Clinical observation

Since adequate history could not be obtained from the patient, the collateral history was taken from brother and the information was reliable and adequate. On examination, appetite was good, sleep was sound, micturition and bowel habits were exhibited incontinence. *Samhanana* was *pravara* (high body built), *Sama pramana* (high body proportion), *Sarva rasa sathmya* (habituated to all taste), *Rogibala* was *Avara* (low strength), *Avara* in *Satva* (poor mental strength), *Vyayamashakti* was *avara* (low capacity to carry on physical activities), *Abhyavaharana* (medium food intake) and *jarana shakti* (digestive power) was *Madhyama. Rasa, Rakta, Mamsa, Medo, Ashi, Majja* and *Manovaha srotas* involved in the disease. During initial assessments MMSE (Mini mental status examination) score was 10 (moderate cognitive impairment), and CASE (Clinical assessment scale for Autoimmune Encephalitis) scale score was 12 (Moderate)

General Examination:

The patient's pulse rate is 96 beats/min and blood pressure is 110/96 mmHg. Respiratory rate is 16 beats/min and the temperature is 98.6°F.

Symctic Examination: Central Nervous System

HMF-Patient was Conscious, Orientation intact, Memory impaired, Attention and concentration impaired, Speech and language impaired (Produce sounds and monosyllables only), Intelligence, judgement,

abstract thinking impaired

Cranial nerves- Cannot elicit. Motor System Muscle Tone: Hypotonic, Muscle Power: Right and left upper limb 3/5, right and left lower limb 4/5, Reflexes intact, involuntary movements absent, Coordination impaired, Gait: with support

Investigations:

MRI brain with angiography shows age-appropriate brain changes. There are areas of gliosis involving the bilateral temporal bones with associated ex- vacuo- dilation of temporal horns of bilateral lateral ventricle. Mild dilation of ventricles system. PET CT Features are suggestive of Limbic Encephalitis. No other metabolically active disease noted to suggest occult malignancy. MRI spine shows changes at the cervical spine (C5-C6) and lumbar spine (L4-L5) levels with patchy enhancement.

After the assessment, as per the Ayurvedic clinical parameters, the case was diagnosed as *Avarana janya vatavyadhi*, and a treatment strategy was formulated accordingly. Due to the chronicity of the disease and the severe clinical presentation the *Vyadhi* was considered as *yapya* (manageable).

Table 1: Time Line Details of treatment

2020 July	During the COVID-19 pandemic, the patient developed excessive concern for family health, maintained over-hygienic practices with frequent hand washing, felt depressed due to being away from school, and engaged in persistent overthinking about the future. She consulted a psychiatrist, was diagnosed with depression, and underwent treatment.
2020 July 4	The patient was admitted to an allopathic hospital following a medicine overdose.
2020 July 7-18	The patient was in coma for 10 days. Following recovery, she developed memory loss, slurred speech, abnormal behaviour, general weakness, and walking difficulty.
2020 August	Improvement noticed, started walking with Support. Diagnosed as LE. And was under allopathic medication
2021 January	The patient fell while jogging, resulting in loss of the front teeth, after which symptoms increased and walking difficulty worsened
2022 April	Got consulted at another hospital for better management
2023	Consulted at an Ayurvedic Hospital- Further improvement were not noticed
2023 May	Got admitted at GARIM Hospital for 2 Month noticed slight improvement in waking and pronunciation. She has also started to express her needs
2024 December	1 st Admission at VPSV Ayurveda college hospital Kottakkal
2025 July	After 6 months, Patient again admitted to the hospital

Table no 2: Treatment Given

Internal medication			
Medicine	Dose And Time	Rationale	
<i>Saraswatagruta</i>	15ml-10.30 am	Improve memory, enhance speech	
<i>Sukumara kashaya</i>	60 ml - 7am	For <i>Vatanauloma</i>	
<i>Brahmi drakshadi kashaya</i>	60 ml - 6pm	Enhances memory, alleviate <i>Vata</i>	
<i>Aswagandhacurna +Atmagupta Curna</i>	6gm at bed time with warm milk	Improve <i>Bala</i> , <i>Brahmana</i> , <i>Vatahara</i>	
<i>Abhraka Bhasma Capsule</i>	1-0-1, A/F	<i>Tridosahara</i>	
Therapeutic intervention			
Treatment	No of days	Medicine	Rationale
<i>Udwarthana</i>	7days	<i>Kolakulathadi Curna</i> mixed with <i>Sudha bala taila</i>	<i>Rookshana</i> , <i>Kapha medohara</i> , Stabilise Body
<i>Sirolepa</i>	21 days	<i>Musta</i> , <i>Amalaki</i> , <i>yashti</i> , <i>Jadamanchi</i> and <i>Brahmi curna</i>	

<i>Pizhichil</i>	14 days	<i>Balaaswagan dha</i> and <i>Trivrit Sneha</i> (1:1)	<i>Vatahara</i>
<i>Matravasthi</i>	27 days	<i>Valiya Lakshadi Taila</i> 100ml	<i>Vatanulomana</i>
<i>Gihva Pratisaranam</i>	27 days	<i>Kalynavaleha</i>	Enhance speech
<i>Shashtika Pinda Sweda</i>	11 days	With <i>Balaswagand hadi Taila</i>	<i>Vatahara</i> , <i>Balya</i> , <i>Brahmana</i>

Discharge Medicine	
Medicine	Dose and time
<i>Saraswatha Grutha</i>	10 ml, empty stomach
<i>Brahmidrakshadi Kashaya</i>	90 ml bd B/F
<i>Abhraka Bhasma capsule</i>	1-0-1 A/F
<i>Brahmitaila Talam</i>	5 drops Evening
<i>Pratimarsha Nasyam</i> with <i>Ksheerabala Taila</i>	once/ day
<i>Pratisaranam</i> with <i>Saraswatacurna</i> + <i>Ksheerabala Taila</i>	once/ day

After one month of treatment the patient showed marked improvement in behaviour and walking. MMSE and CASE score demonstrated significant improvement

Assessment score

Table no 3:

SCALE	BEFORE TREATMENT	AFTER TREATMENT
MMSE	10	21
CASE	12	7

DISCUSSION

The Ayurvedic management of Limbic Encephalitis (LE) involved Rookshana, Snehana, Bramhana, and Vyadhivipareeta chikitsa with internal medicines and physiotherapy to strengthen muscles. As an *Avarana janya Vatavyadhi* with *Kaphavarana* and *anyonya avarana*, Rookshana was performed first to reduce Kapha, followed by Snehana and Brahmana to pacify Vata. *Prathisara* and *Shirolepa* acted as Vyadhi-vipareeta chikitsa.

Udwarthana with Kolakulathadi and Sudhabala taila reduced Kapha preparing for therapies. Pizhichil with Bala Aswagandhadi taila and Trivrit sneham pacified Vata, while Shashtika Pinda Sweda improved Bala and walking. *Matra Vasti* with Valiya Lakshadi taila enhanced strength, digestion and corrected incontinence. Jihva Pratisaranam with Kalyanavaleha improved speech and Shirolepam with Medhya drugs addressed behavior and memory.

Internal medicines included Saraswatha grita (memory, speech), Sukumara kashaya (bowel/bladder control), Brahmidrakshadi kashaya (cognition, behavior), Abhraka Bhasma (Tridosha balance, digestion), and Rasayana drugs like Ashwagandha and Atmagupta (strength, Vata pacification).

Clinical outcomes showed MMSE improvement from 10 to 21 and CASE score reduction from 12 to 7 with better eye contact, reduced inappropriate behavior, improved walking, speech attempts and reduced incontinence.

Being a single case, limitations include absence of controls and inability to rule out confounders, though results suggest promising integrative management.

DECLARATION OF THE PATIENT CONSENT

Written informed consent was obtained from the patient's caregiver for publication

CONCLUSION

This case highlights both the potential benefits and challenges of Ayurvedic interventions in the holistic management of limbic

encephalitis. Initial improvements were encouraging, yet sustained recovery requires continued, integrated care. The outcomes emphasize the value of combining Ayurvedic therapies with physiotherapy to address cognitive, behavioural, and functional deficits comprehensively. An integrative approach rooted in Ayurvedic principles alongside rehabilitative strategies may offer more sustainable solutions for individuals living with chronic LE.

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