

# Trigeminal Neuralgia- A Case Study on Trigeminal Neuralgia W.S.R To Anantha Vata

Dr. Devendra Singh Rathore<sup>1</sup>, Dr. Suman Kumari<sup>2</sup>

<sup>1</sup>*Professor and Head, Department of Shalaky Tantra, Naiminath Ayurvedic Medical College Hospital and Research Center, Agra, U.P*

<sup>2</sup>*Associate Professor, Department of Prasuti Tantra & Stree Roga, Naiminath Ayurvedic Medical College Hospital and Research Center Agra, U.P*

**Abstract**—A severe neurological condition known as trigeminal neuralgia is frequently compared as a "lightning bolt" to the face. Those who suffer this short, severe pain episode may have it multiple times during the day, rendering them incapacitated. While V2 and V3 are the most frequently affected, trigeminal neuralgia is nearly always unilateral and can affect any or all sections of the trigeminal nerve. The most common cause of trigeminal neuralgia is compression of the nerve root by the superior cerebellar artery. Acharya Susruta describes eleven types of siroroga, including Anantavata. In this case, Vata predominates and all three doshas are instantly vitiated, resulting in significant facial pain on one side. Vatapradhana Sannipatika Vyadhi is the name of it. Women are more likely to develop TN than males. This study is about a case report of 72 years of old female patient of TN attend the Shalakyatanta OPD of college Shri Shrdi Sai Baba Ayurveda college and Hospital, Renwal, Jaipur and this present study it is observed that the condition was improved successfully by the Ayurvedic treatment like Nasya, Shiropichu, Anuvasana Vasti along with internal administration of medicines.

**Index Terms**—Trigeminal neuralgia, Shiroroga, Anantavata

## I. INTRODUCTION

Trigeminal neuralgia is a long-term neuropathic pain condition that results in severe facial pain episodes. Trifacial neuralgia, suicide sickness, or tic douloureux [sudden severe pain] are other names for trigeminal neuralgia (TN). This chronic pain condition impacts the trigeminal nerve. 90% of the time It occurs when the trigeminal nerve (fifth cranial nerve) is compressed

by injury or when a blood vessel, such as the superior cerebral artery, presses against the trigeminal nerve root close to the brainstem<sup>1</sup>. Usually unilateral, this is characterized by abrupt, intense, throbbing, searing, electric shock, stabbing, sharp shooting, and recurrent pain in the distribution of one or more Trigeminal nerve branches (ophthalmic V1, maxillary V2, and mandibular V3). It typically manifests after the age of fifty. In our daily routine life simple activities like eating, drinking, teeth brushing, flossing, using mouthwash, talking, smiling, shaving, putting on makeup or washing your face are the triggering point of this disease.<sup>2</sup> The number of attacks may vary from less than 1 per day to 10 or more.

According to Acharya Sushruta, one of the diseases listed under Sirogata roga 11 is Anantavata. The prstha bhaga of the griva, Akshi (eye), Bhru (eyebrow), and Shankha pradesha (temporal area) are all severely painful due to the vitiated tridosas, which also damage the Manya Sira<sup>3</sup>. In Ayurveda, we may nearly associate Anantavata with Trigeminal Neuralgia based on the signs, symptoms, and pathology of this shirogat roga. External treatments and internal drugs are used to calm tridoshas, and the vatapittahara diet is the next step in management. The Anantavata and Suryavarta therapy lines are comparable. In Suryavarta 5, nasyakarma, lepa, parisheka, kavalagraha, and shirovasti work well. The patient in this instance had been diagnosed with trigeminal neuralgia and had been taking carbamazepine and oxcarbazepine for seven years. The patient had side effects from the medication, such as joint discomfort and mouth sores,

nausea, vomiting, dizziness which made her to be on irregular medication. She was also advised for invasive procedure like Radiofrequency Thermal, Balloon therapy of permanent recovery. The patient's family then decides to use ayurvedic treatment in an attempt to lower the oxcarbazepine dosage. The primary goal of ayurvedic treatment was to improve subjective wellbeing and quality of life by gradually lowering the dosage.

## II. CASE STUDY

A 72year old female patient was admitted in shalakyia IPD, Shri Shrdi Sai Baba Ayurveda college and Hospital, Jaipur. The patient had complaints like electric shocked pain in the right side of head at the temporal region and radiating to the right side of forehead, cheek, upper lip, eye brow of right eye and right lower jaw. She is unable to brush her teeth and is unable to wipe her face with towel in the past 7 years. The complaints got aggravated since 1 week. Patient also complained of disturbed sleep since a month due to pain. Onset of pain was sudden, severe electric shock like shooting pain lasted for 2 to 12 h. The pain was episodic in nature occurring as two to three attacks in a week. Pain used to aggravate on doing day today activities such as chewing, brushing teeth, during cold season and got relieved on hot fomentation and on consuming tea. Patient was diagnosed with trigeminal neuralgia due to nerve compression/irritation in root of 5th cranial nerve. Initially She used to take Mazetol (200mg) twice a day. Patient felt a significant reduction in the intensity and duration of pain and she continued taking this medicine for 2 years. After some

time when the pain was not getting relieved with mazetol, oxetol(400mg) was prescribed to her. Patient continues taking this medicine for the last 5 years. She observed mouth sores, joint pain, nausea, vomiting, and dizziness which relieved on withdrawing of oxcarbazepine so She was taking this medicine irregularly. In Jan 2023 she came to Shri Shrdi Sai Baba Ayurveda college and Hospital, Renwal, Jaipur with the above-mentioned complaints for further intervention. There was no relevant past history of any other illness.

### (A) General examination >

- (1) BP: 135/80 mm Hg,
- (2) Pulse: 80/min
- (3) RR: 22/m in
- (4) Spo2 95%
- (5) Temperature Afebrile

### (B) Personal History >


1. Appetite – good
2. Sleep – disturbed
3. Bowel – regular
4. Micturition – normal
5. Diet: Vegetarian
6. Addiction- No

### (C) Blood investigation

- (1) Hb%: 11.0 g/dl
- (2) BSL(R): 100mg/dl
- (3) Sr. Creatinine: 0.9 mg/dl
- (4) TSH: 1.20 Miu/ml,
- (5) HBsAg: non-reactive.

(D)MRI of Brain

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**DIAGNOSTIC REPORT**

NAME	BRUNWAR...	STUDY DATE	22-09-2023 16:30:13
AGE / SEX	071Yrs / F	HOSPITAL NO.	MH011328442
ACCESSION NO.	R6142852	MODALITY	MR
REPORTED ON	22-09-2023 17:02:07	REFERRED BY	Dr. Shobit Agrawal

**MRI OF BRAIN (PLAIN) WITH FIESTA SEQUENCES**

Technique:

Findings:


1. Single vascular loop is seen abutting the cisternal segment of the right 5th cranial nerve, about 1 mm distal to the root entry zone, possibility of right trigeminal neuralgia can be considered in appropriate clinical settings.
2. Left 5th cranial nerve, bilateral 6 to 8 cranial nerves, cerebellopontine angle and internal auditory canals appear normal without any mass.
3. Moderate cerebral neuro parenchymal volume loss is noted, compatible for age.
4. Moderate confluent T2 FLAIR hyperintensity is noted in bilateral centrum semiovale, corona radiata, parieto-occipital region and frontoparietal subcortical white matter, - s/o chronic end vessel disease changes. (Fazeka's Grade II).
5. No evidence of acute infarct or hemorrhage or SOL is seen.

Rest of the brain parenchyma appears normal in signal intensity.  
Lateral ventricles and third ventricle are normal.  
Cerebellum & brainstem appear normal.  
No midline shift is seen.  
Basal cisterns are clear.  
Cerebellum & brainstem appear normal.  
Visualised paranasal sinuses appear normal.  
Soft tissue: Correlation with clinical profile, previous records & relevant further investigations.

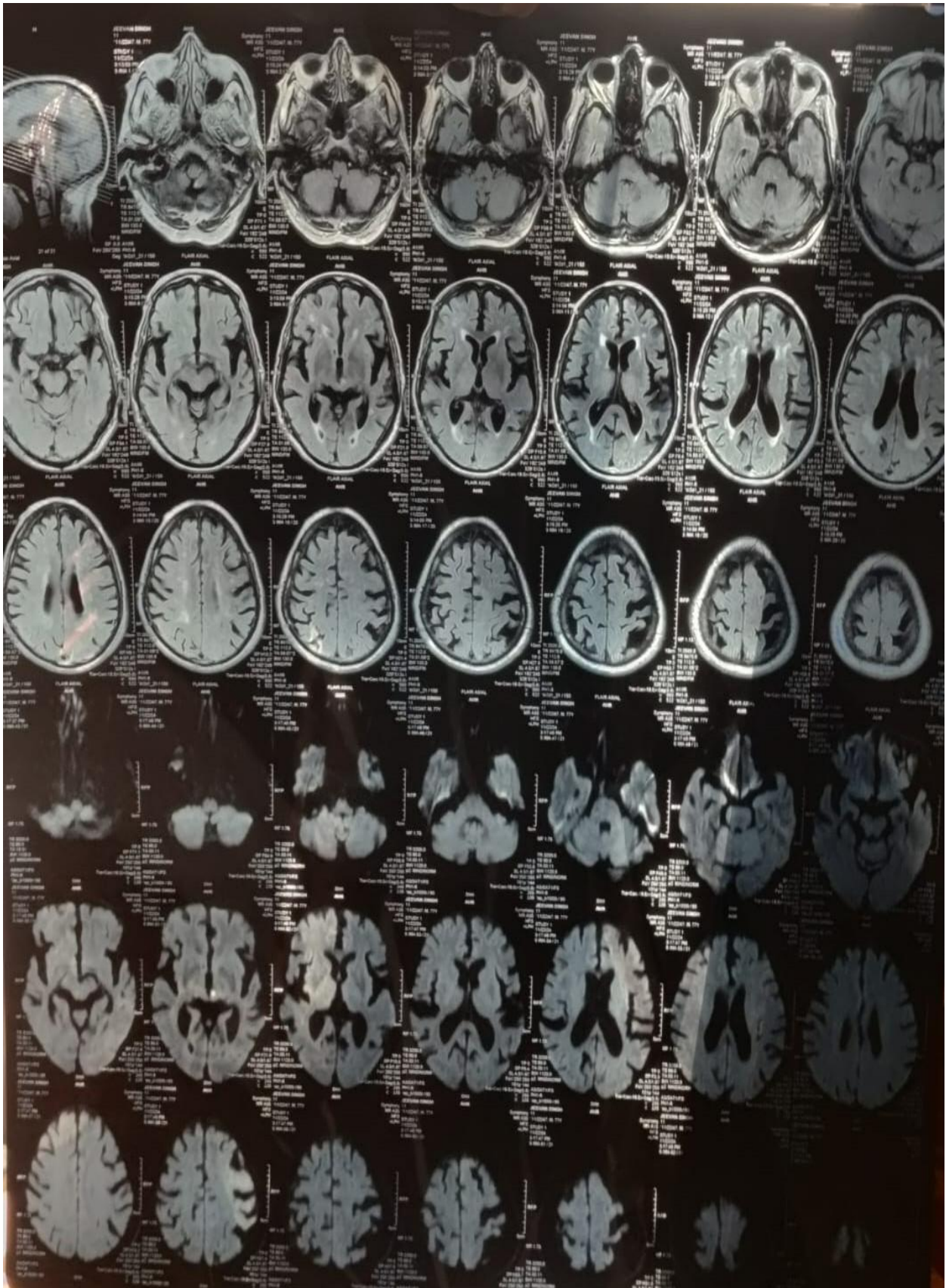
*[Signature]*

Manipal Hospital Jaipur  
Sector-5, Vidhyadhar Nagar, Main Sikar Road, Jaipur - 302039, Rajasthan  
P +91 9001 333 444/ 1800 102 5555 E infojaipur@manipalhospitals.com

Manipal Health Enterprises Pvt Ltd.  
CIN: U85110KA2010PTC052540  
Regd Off: The Annexe, #98/2, Rustom Bagh, HAL Airport Road, Bengaluru 560 017, Karnataka  
P +91 80 4936 0300 E info@manipalhospitals.com, www.manipalhospitals.com



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(E) Trigeminal Nerve Examination-

- (1) Clenching of teeth: The strength of muscles in the right side less as compared to the left side.
- (2) Corneal reflex: Corneal reflex is diminished on the Right eye after corneal reflex test

(F) Systemic Examination- NAD

Table 1: (Panchakarma Procedure) TREATMENT:

In the treatment we have given external therapy like anuvasan basti, nasya, jalokaavcharana etc. and internal medicine, through which the patient's doshas are eliminated through shodhan and shaman methods. We have shown the line of treatment and grading scale for patient's pain in the tables below.

SN	Procedure	Medicines Used	Duration
1.	Nasya	Ksheerabala Taila 101 8 drops Morning	7 Days
2.	Anuvasana Vasti	Mahanarayana taila	7 Days
3.	ShiroPichu	Brahmi Taila	7 Days
4.	Jaloukavacharana		1 Sitting

TABLE 2: INTERNAL MEDICINES

SN	Medicines	Administration	Duration
1.	Ekangaveera rasa	125mg BD with lukewarm water	21 Days
2.	Maharasnadi Kashaya	15ml+45ml of lukewarm water before food	21 Days
3.	Ksheerabala 101 Cap	2 cap BD with Milk	21 Days
4.	Ashwagandha churna+Shatavari churna	3+3gm BD with Milk	21 Days

TABLE 3: PATIENT DISCHARGED WITH THE FOLLOWING MEDICATION AND ADVISED TO COME FOR CHECK-UP AFTER FOR 1 MONTH:

SN	Medicines	Dose	Anupana
1	Sitopaladi Churna Brihatvatichintamani rasa Guduchi satva Shank bhasm Ashwagandha Churna	3gm 125mg 250 125mg 3gm mix all medicine and take bd before food	With lukewarm water/ honey
2	Aarogyevardhani vati	2tab x bd AF/BF	With lukewarm water
3	Vishtinduk Vati	2tab x bd After food	With lukewarm water
4	Brahmi Ghrita	5ml x bd Before food	With lukewarm water/ milk
5	Dashmool kwath	15ml x bd After food 1 hour	45ml With lukewarm water
6	Erand bhrust haritaki	1 tab x Hs	With lukewarm water

TABLE4: DEFENCE AND VETERANS PAIN RATING SCALE (DVPRS)

SN	Symptoms	BT	AT	Follow up 1month
1.	Pain over Right Frontal	7	2	0
2.	Pain over Right upperlip	9	4	1
3.	Pai over Right Temporal region	6	3	0

4.	Pain over the Eye brow of Right Eye	7	3	0
5.	Pain over Right Cheeks	9	4	1
6.	Pain over Right lower Jaw	8	2	0

### III. DISCUSSION

Patients with trigeminal neuralgia experience abrupt, intense, and painful attacks of facial pain in one or more of the V branches, which significantly lowers their quality of life. There are three types of etiology for trigeminal neuralgia: idiopathic, classic, and secondary. Neurovascular compression in the trigeminal root entrance zone is linked to classic trigeminal neuralgia. This can result in demyelination and a dysregulation of voltage-gated sodium channel expression in the membrane.

These alterations may be responsible for pain attacks in trigeminal neuralgia patients. Women are more likely to experience trigeminal neuralgia (TN) than men because Women and older people tend to have smaller nerve volumes than men and younger people. TN is associated with nerve atrophy, so smaller nerve volumes may make women and older people more predisposed to developing TN.

The pain normally affects only one side of the face. The symptoms of TN are comparable to Anantavata in Ayurveda. It is claimed that all of the Tridoshas irritate each other, causing intense pain in the nape of the neck, eyes, brows, and temples; throbbing agony at the sides of the cheekbones; lack of movement in the lower jaw; and eye illnesses. Such symptoms caused by Tridoshas are known as Anantvata.

The nasal passage is considered the entrance to the head.<sup>6</sup> Nasya is the term for administering medication via the nasal route. This is the closest root in Ayurveda Nasa, and it is the most effective treatment for head-related illnesses. Uttamanga Shuddhi<sup>7</sup> can only be performed through the Shodhana technique. All doshas of the urdhwajatrugata portion are calmed by Marsha Nasya using Ksheerabala 101 Avarti Taila. Due to the vatahara feature of Ksheerabala taila, a comparable decrease in shirashoola is observed following Nasya karma. Nasya involves the

administration of drugs through the nose. There are several ways that karma can enter the body:

1. Neurological pathway: The olfactory nerve is connected to the limbic system and hypothalamus, which control endocrine secretions.
2. Diffusion through nasal mucosa: Drugs must first pass through the nasal mucosa to be absorbed.
3. Shringataka marma- Drug reaches the shringataka marma which is located in the middle part of the head the drug then spread to the brain eye ear throat etc.

It is possible to observe Shiropichu's mechanism of action both locally and systemically. The absorption of chemicals through the skin depends on a number of factors, including the concentration of oil, the duration of contact, the drug's solubility, the physical condition of the skin, and the exposed body part. When applied, shiropichu oil has a long contact period (almost 30 minutes) and an outstanding compact concentration. Furthermore, the scalp absorbs more quickly since the skin above it is thinner than the skin on other parts of the body<sup>8</sup>.

Brahmi taila, which includes vatapittahara, medhya, rasayana, medohara, nidrajanana, shothahara, and hrudya, is the oil that we employed in this instance for Shiropichu. Its sukshma guna allows it to enter the body's deep channels.<sup>9</sup> Shiropichu can break the pathogenesis of Anantavata by employing Brahmitaila.

In the Ayurvedic treatment of Basti, drugs are absorbed through the colon walls and transported throughout the body by Vata dosha. The drugs can be absorbed through the following processes:

1. Passive diffusion: Drugs may cross cell membranes through passive diffusion.
2. Facilitated passive diffusion: Drugs may cross cell membranes through facilitated passive diffusion.

3.Active transport: Drugs may cross cell membranes through active transport.

4.Pinocytosis: Drugs may cross cell membranes through pinocytosis

5.Transcellular route- This route depends on lipophilicity and sneha Dravya used in basti promotes it.

6.Paracellular route- In this route, the drug diffuses through the space between epithelial cells.

Basti can be utilized for a variety of purposes, including bowel regularity, joint support, excess vata in digestion resulting in occasional gas, nervous system support, and healthy sleep patterns. Clearing vata from the system promotes energy, vigor, and mental clarity. Basti supports general health, graceful aging, shine, and a healthy glow. Mahanarayana taila contains a variety of herbs such as Ashwagandha, Jatamansi, Rasna, Vacha, and Karanja. These medications make this formulation distinctive.Mahanarayana Taila is well-known for its shooh nashak property. It is anti-oxidant, adaptogenic, and immuno-modulatory, which helps to relieve stress and has a calming impact on the mind.<sup>10</sup>

Leech therapy, also known as Jalaukavacharan, is a traditional Ayurvedic bloodletting procedure with considerable potential for treating a wide range of inflammatory, ischemic, and viral disorders. Leech saliva includes numerous physiologically and pharmacologically active chemicals that have anticoagulant, antiplatelet, antiinflammatory, and anti-edema properties in the body. Leech therapy can effectively treat a wide range of vascular and musculoskeletal illnesses, including venous congestion, vascular diseases, abscesses, ischemic heart disease, and arthritis. Leeches are utilized to relieve congestion by extracting impure blood (Tridosha yukta rakta) that cannot depart through the venous system.<sup>11</sup>



BEFORE TREATMENT



AFTER TREATMENT

#### IV. CONCLUSION

Nasya, Anuvasanbasti, Shiropichu, Jalouka avcharana, and oral drugs such as Ekangaveera rasa, Ashwagandha churna, Shatavari churna, Ksheerabala (101) Cap, and Maharasnadi Kashaya all had a substantial effect in this case study. The overall result of therapy was a 90% improvement in symptoms. There have been no reported adverse effects to these medications. This oral drug and Panchakarma therapies are beneficial in treating Anantavata (Trigeminal Neuragia).

TGN is a suicidal disease which have unpleasant result like intolerable pain. The use of Ayurvedic medicine and medicinal treatments have resulted in reduction of pain and symptoms of TGN on the Defense and Veterans Pain Rating Scale (DVPRS) parameters, and reduced recurrence and also helps in preventing complications of TGN.

Nasya, Anuvasanbasti, Shiropichu, Jalouka avcharana, as well as oral drugs such as Ekangaveera rasa, Ashwagandha churna, shatavari churna, Ksheerabala (101) Cap, and Maharasnadi Kashaya, have a substantial effect in this study. The overall effect of therapy indicated a 90% improvement in symptoms. There have been no reports of adverse reactions with these medications. This oral drug, combined with Panchakarma therapies, is useful in treating Anantavata (Trigeminal Neuragia).

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