



Integrative Management of Trigeminal Neuralgia: A Case Study

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Abstract: Background:-Trigeminal neuralgia (TN) is a chronic neuropathic pain disorder characterized by recurrent, unilateral, severe facial pain, often triggered by trauma, surgical interventions, or idiopathic causes. In Ayurveda, TN may be correlated with Anantavata under Vataja Shiroroga. This case study highlights the integrative approach of Ayurvedic and modern medicine in TN management.

Aim:- To evaluate the effectiveness of integrative management in case of Trigeminal Neuralgia.

Objective:-To assess efficacy of combined Ayurvedic panchakarma therapies and modern therapies on pain relief ,functional improvement and quality of life in trigeminal neuralgia.

Methods and Materials:- A 32-year-old male patient had complaints of severe left temporal and buccal pain since 2 years with history of septoplasty and FESS. Ayurvedic treatment included oral medications, Panchakarma therapies like shamana Nasya and Karna purana. Modern supportive therapy included neurotropic injections and neuroprotective supplements.

Results:-After 3 weeks of integrative treatment, the patient reported reduction in pain frequency and severity, with improved sleep and daily activities. At 2 months follow-up, the patient demonstrated sustained relief without recurrence.

Discussion:-Trauma and prior ENT surgeries may have triggered trigeminal nerve irritation, leading to chronic neuralgia. Ayurvedic interventions, particularly Nasya and Jalauka Avacharana, provided significant symptomatic relief. The integrative use of Ayurveda with neurotropic therapy enhanced recovery and improved quality of life.

Conclusion:-Integrative management of trigeminal neuralgia proved effective in this case, demonstrating pain relief and functional improvement. Further clinical studies are warranted to validate these results on a larger scale.

Keywords: Trigeminal neuralgia (TN), Anantavata ,Jalauka Avacharana, karna puran

I. INTRODUCTION

- ❖ Trigeminal neuralgia is defined as recurrent attacks of unilateral, brief, electric shock-like pains, abrupt in onset and termination, limited to the distribution of one or more divisions of the trigeminal nerve, and triggered by innocuous stimuli.
- ❖ Triggered by light touch, chewing, speaking, face washing
- ❖ Female > Male, peak incidence 40–60 yrs.

ASPECT	ANANTAVATA	TRIGEMINAL NEURALGIA
NIDANA	Upavasa (fasting), Shoka (grief), Ruksha–Sheeta ahara, Alpa bhojana	Vascular compression of trigeminal nerve, demyelination, nerve irritation
DOSHA	Tridoshaja, mainly Vata	-
STHANA	Manya pradesh (carotid/neck), Shankha, Akshi, Lalat pradesh	Trigeminal nerve branches (ophthalmic, maxillary, mandibular)
RUPA	Severe pain in temples, eyebrows, eyes, nape; twitching of cheek, lockjaw, ocular problems	Sudden, severe, unilateral, electric shock-like facial pain, triggered by chewing, speaking, touch
SAMPRAPTI	Vitiated Vata-Pitta lodged in Manya Pradesh → acute head/ facial pain	Nerve compression / irritation → paroxysmal pain
SADHYA-ASADHYATVA	Sadhya if treated early	Chronic, recurrent; modern treatment mainly symptomatic
CHIKITSA SUTRA	Similar to Suryavarta chikitsa	-
TREATMENT	Raktamokshana (Siravyadha) for pain relief - Vata-Pitta shamana ahara & aushadhi - Ghrita preparations (Madhumastaka, Ghritapura) - Nasya, Snehana, Swedana	Anticonvulsants (Carbamazepine, Gabapentin) - Nerve blocks - Microvascular decompression surgery

Trigeminal Neuralgia can be understood as Anantavata in Ayurveda. Management focuses on Vata-Pitta shamana, Raktamokshana for pain relief, and strengthening of cranial nerves through snehana, nasya, and ghrita preparations, along with proper ahara-vihara.

❖ Materials and methods:-

Study design – single case study

❖ Patient detail case report-

- Patient: ABC
- Age:- 32 yearS
- Sex:- Male
- UHID- 346500
- VENUE- OPD NO 4, Dr.D.Y.Patil school of Ayurveda,Navi Mumbai

❖ Chief Complaint:

- Pain at left temporal & buccal area since 2 years

❖ Surgical History:-

- Septoplasty with Right Conchoplasty – 6/2/2024
- Left FESS with Endoscopic Septoplasty + Bilateral Turbinoplasty – 18/5/2023

❖ Past History:

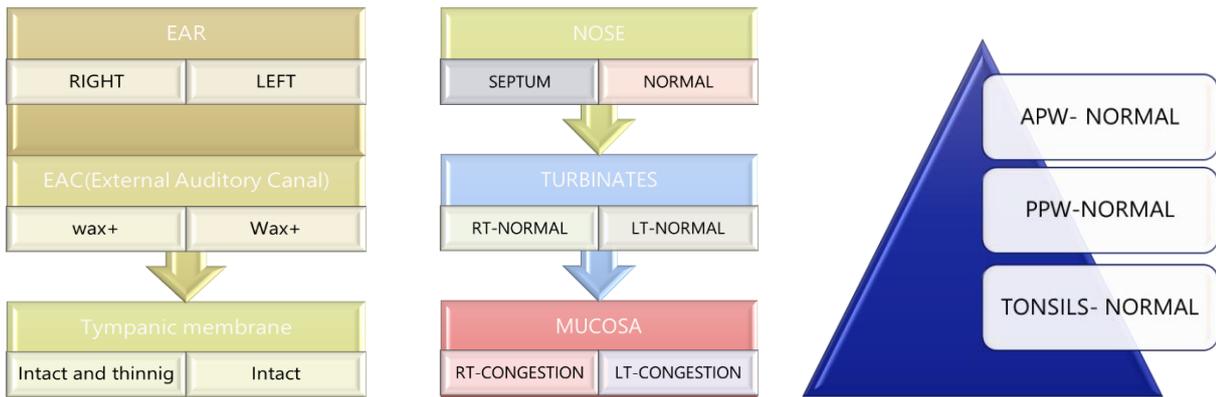
- Left retrobulbar and facial fullness, orbital & facial injury (1.5 yrs)

❖ Previous reports-

- CT - Brain on 8/12/23-deviated nasal septum with nasal spur towards left is noted polipoidal mucosal thickning noted left ethamoid and sphenoid sinuses
- HRCT- PNSD on 13/2/23 Shows linear minimally displaced fracture is noted involving the post portion of the Of lamina papyracea extending to the medial wall of the left optic nerve canal bilateral osteomeatal units are blocked
- H/o - trauma with fist fight to left eye 2yrs back
- H/o- arch bar wringing in 2012

➤ H/o mandibular fracture due to trauma

❖ Local Examination:-



SINUSES-

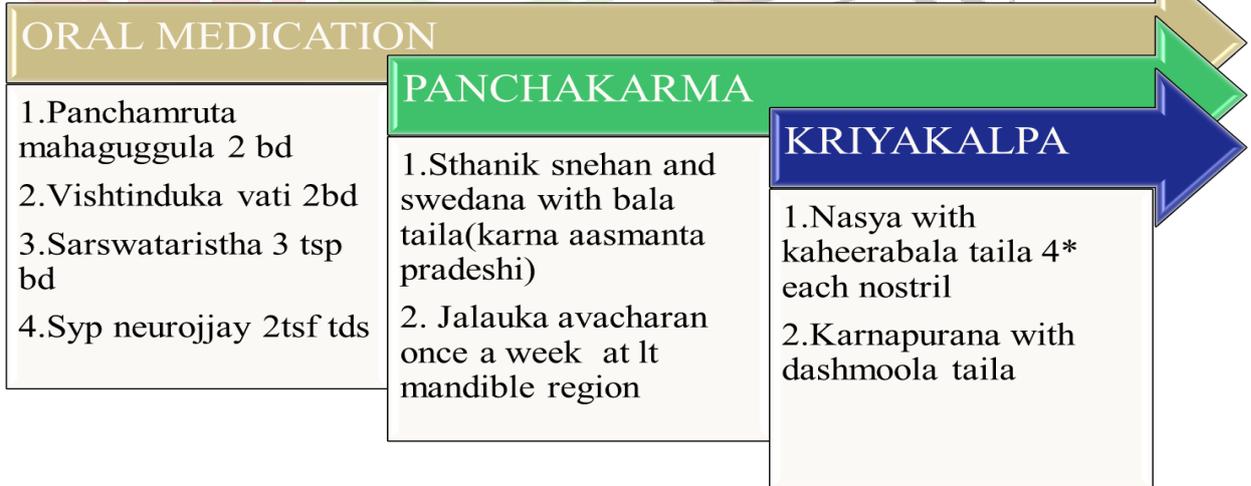
FRONTAL-NORMAL

ETMOIDAL- BILATERAL MILD TENDERNESS

MAXILLARY- BILATERAL MILD TENDERNESS

- EXTRAORAL
 - A. VISUAL: NO FACIAL ASSYMETRY
NO SWELLING
 - B. PALPITATION: NO TENDERNESS
- INTRAORAL- MUCOSA- NORMAL
NO PATHOLOGICAL LESION PRESENT
TONGUE- NORMAL

❖ MANAGEMENT :-



❖ Oral Medications:-

Panchamrita Guggulu

Contents:

Guggulu (Commiphora mukul),
Abhraka bhasma, Loha bhasma,
Vanga bhasma, Tamra bhasma,
Shilajit, Triphala, Trikatu,
Dashamoola

MoA:

Vedanasthapana (analgesic) →
Guggulu reduces inflammatory
mediators, pacifies Vata.

Shothahara (anti-inflammatory) →
Triphala & Dashamoola reduce
nerve inflammation and congestion.

Rasayana (rejuvenative) → Shilajit
+ Abhraka improve nerve strength
and microcirculation.

Relevance in TN

Relieves neuropathic pain, reduces
local nerve irritation, prevents
degeneration.

Contents

Purified seeds of Strychnos nux-
vomica.

MoA:

- Contains Strychnine & Brucine (alkaloids) → potent CNS stimulants (in purified form, small doses act as neurotonics).

- Improves nerve conduction by enhancing excitability of neurons.

- Stimulates neuromuscular activity, reducing sluggish Vata-induced pain signals.

Contents: Purified seeds of Strychnos nux-vomica.

Relevance in TN:

Helps restore nerve excitability and reduces Vataja shoola (neuralgic pain).

⚠ Needs careful dosing (to avoid toxicity).

Vishtinduka Vati

Contents :

- Brahmi (Bacopa monnieri) – Medhya Rasayana, nootropic, anti-anxiety
- Shatavari (Asparagus racemosus) – Rasayana, Vata-Pitta pacifier
- Ashwagandha (Withania somnifera) – Adaptogen, anti-stress, nervine tonic
- Vidarikanda, Vacha, Trikatu, Triphala, etc.
- Fermented in Jaggery + Dhātaki flowers → enhances bioavailability

Mode of Action (MoA) in TN:

- Medhya Rasayana (neurotonic): Brahmi + Ashwagandha strengthen Majja dhatu (nervous system), improve nerve plasticity.
- Anxiolytic & anti-stress: Reduces anxiety and stress that worsen neuralgic attacks.
- Vata pacification: Key in Vataja Shoola (neuralgia).
- Improves neurotransmission: Enhances synaptic communication and cognitive stability.
- Adaptogenic effect: Balances HPA axis (stress-pain cycle), lowers recurrence of pain episodes.

Clinical Relevance in TN:

- Helps in pain perception modulation (reduces exaggerated pain response).
- Improves mental resilience against chronic pain → reduces depression, irritability, sleep disturbance (common in TN patients).
- Complements neurotropic modern drugs (Methylcobalamin, ALA) by acting as Rasayana & Medhya support.

saraswatarishtha

❖ Panchakarma therapies and their MOA:-

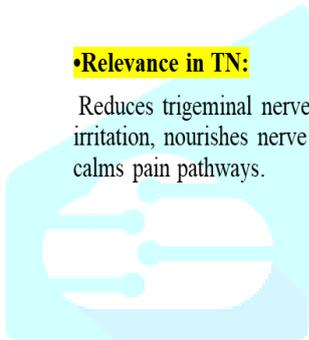


Contents: Bala (Sida cordifolia), Ksheera (milk), Tila taila (sesame oil).

MoA:

- Nasya = direct route to Shiras (head region) via olfactory and trigeminal nerve endings.
- Bala → Vata-shamaka, nerve strengthening.
- Ksheera → cooling, nourishing, improves myelin health.
- Tila taila → acts as carrier, penetrates minute channels (srotas).

Nasya – ksheerbala taila



Relevance in TN:

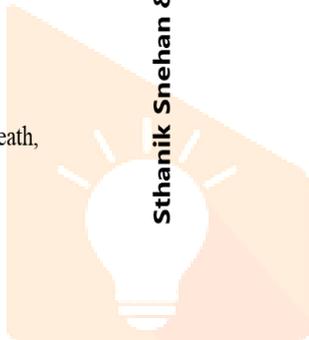
Reduces trigeminal nerve irritation, nourishes nerve sheath, calms pain pathways.



MoA:

- Snehan (oleation) → softens tissues, improves local blood circulation.
- Swedana (fomentation) → reduces stiffness, relieves local spasm and Vata aggravation.
- Bala taila provides anti-inflammatory & nerve-strengthening effect.
- Relevance in TN:** Relieves muscular tension and nerve compression around face/mandible.

Sthanik Snehan & Swedana with Bala Taila



Contents: Decoction & oil of Dashamoola (10 roots).

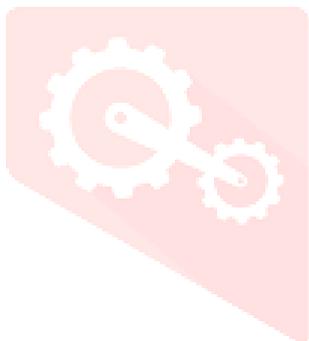
MoA:

- Shothahara → reduces local inflammation around auditory–facial region.
- Vata-Kapha pacifying → balances aggravated doshas affecting craniofacial nerves.
- Neuroprotective → prevents further irritation of nerve endings.

Relevance in TN:

Helps reduce radiating pain towards ear & jaw region.

Karnapurana with Dashmoola Taila



JALAUKAACHARANA

Leech Therapy

Once a week at mandible region

MoA:

- Leech saliva contains Hirudin, Bdelins, Eglins, Hyaluronidase.
- Anti-inflammatory & anticoagulant → reduces congestion & microthrombi.
- Improves microcirculation around mandibular & trigeminal nerve branches.

Relevance in TN: Relieves local inflammation, decreases nerve compression, gives symptomatic pain relief

❖ Modern medications:-



TAB. NEUROKIND GOLD

Contents: Methylcobalamin, ALA, Vitamins & Minerals.

MoA:

Antioxidant + neurotrophic → protects trigeminal nerve from free radical injury.
Supports neurotransmitter balance.

Relevance in TN:

- Maintains long-term nerve health, prevents recurrence of pain.



CAP. PALSINEURON

Contents: Methylcobalamin + Alpha-lipoic acid (ALA) + Pyridoxine + Folic acid.

MoA:

ALA → potent antioxidant, reduces oxidative stress in nerves.

Methylcobalamin → nerve repair, remyelination.

Pyridoxine & folate → improve neurotransmission & nerve metabolism.

Relevance in TN:

Protects against nerve damage, reduces burning/tingling sensations.



Inj. Renerate

- (Methylcobalamin injection, with Vit B1, B6)

MoA:

Methylcobalamin → promotes synthesis of myelin sheath, enhances axonal regeneration.

B1 & B6 → improve neurotransmitter function.

Relevance in TN:

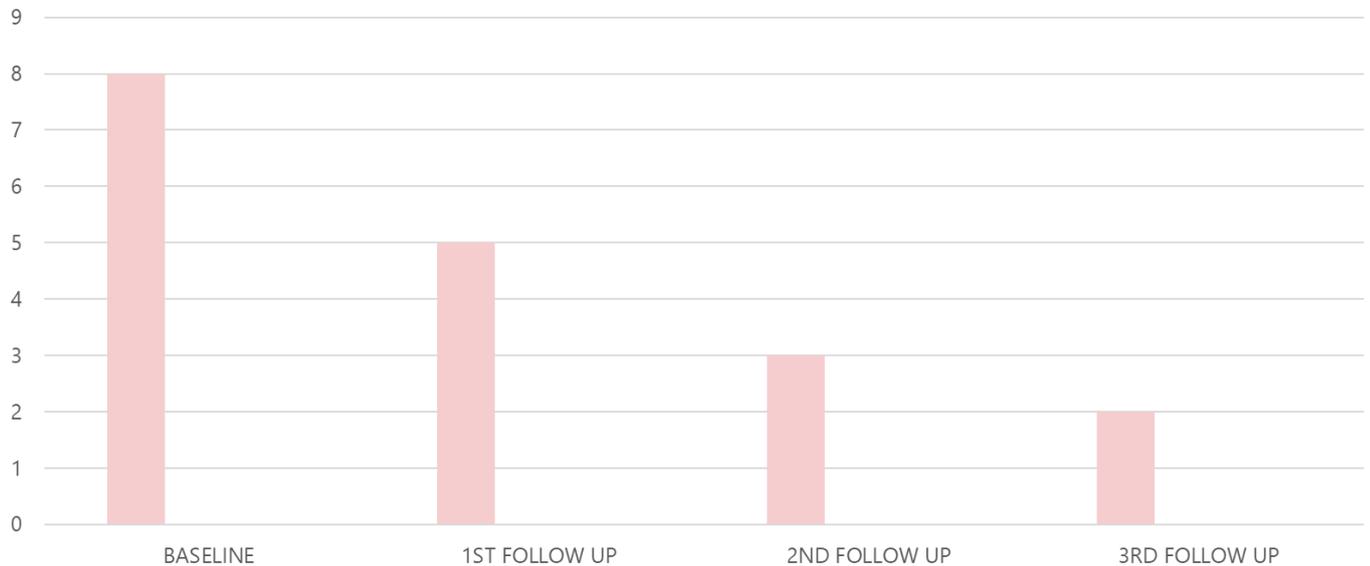
Repairs demyelinated trigeminal nerve fibers, reduces neuropathic pain.

❖ Results:-

- Total follow-ups
- Assesment Tool:- Visual Analogue Scale (VAS 0-10)
- Where 0 = No Pain 10 = Worst Possible Pain

VISITS	IMPROVEMENT	VAS SCALE	DATE
Baseline (Before treatment)	Severe, stabbing pain at left temporal & buccal region	8/10	24/8/24
1 ST FOLLOW UP	Pain reduced, fewer episodes, improved daily activities	5/10	7/9/24
2 ND FOLLOW UP	Marked reduction, no night awakenings, improved quality of life	3/10	18/9/24
3 RD FOLOW UP	Sustained relief, occasional mild discomfort only	2/10	30/9/24

❖ VAS Scale Graph:-



❖ Discussion:-

- Conventional management (carbamazepine, gabapentin, surgical decompression) provides temporary relief but is frequently associated with recurrence, resistance, and adverse effects. Hence, integrative approaches hold significance.
- In this case an Ayurveda–Modern integrated regimen was implemented:

1.Oral Medications (Systemic Support):

- Panchamruta Mahaguggulu acted as an anti-inflammatory, analgesic, and Rasayana to reduce nerve irritation.
- Vishtinduka Vati improved neuronal excitability and conduction, addressing Vataja shoola.
- Saraswatarishta and Neurojyay Syrup provided Medhya Rasayana and adaptogenic support, reducing stress-aggravated pain perception.

2.Panchakarma Therapies :

- Snehan–Swedana with Bala Taila relaxed local musculature and enhanced circulation.
- Jalauka Avacharana (leech therapy) provided anti-inflammatory, anticoagulant, and microcirculatory benefits, reducing congestion around trigeminal branches.
- Nasya with Ksheerbala Taila directly nourished the trigeminal pathway via nasal route.
- Karnapurana with Dashmoola Taila pacified Vata-Kapha imbalance and alleviated local pain.

3.Neurotropic supplementation (Palsineuron/Neurokind Gold, Inj. Rerverve) promoted nerve repair, myelination, and antioxidant protection.

- ❖ Clinical Outcomes:
 - Pain intensity reduced significantly from VAS 8 → 2 across three follow-ups (6 weeks).
 - The patient reported reduced attack frequency, improved sleep, functional recovery, and better psychological well-being.
 - No adverse effects were observed. This highlights that integrative therapy not only provides symptomatic relief but also enhances nerve health, stress tolerance, and long-term sustainability of results.

- ❖ Conclusion:-
 - Trigeminal Neuralgia poses therapeutic challenges with conventional monotherapy.
 - An Ayurveda + Modern integrative protocol provided marked pain reduction, improved nerve function, and enhanced quality of life in this case.
 - The treatment plan worked through multi-dimensional mechanisms:
 - Ayurveda → Vata pacification, Rasayana, anti-inflammatory & neuro-tonic action.
 - Modern medicine → Neuroprotection, remyelination, antioxidant support.
 - Integrative care demonstrated sustained results without adverse effects, making it a promising approach in refractory neuralgia.
 - Future Scope: Larger clinical trials with standardized integrative protocols are needed to validate these findings and establish them as evidence-based treatment options for trigeminal neuralgia

❖ Referances:-

- CHARKA SIDHHISTHANA 9/84
- SUSHRUTA UTTARTANTRA 26,36,37
- HARRISON'S INTERNAL MEDICINE
- RECENT AYUTVEDA AND NEUROLOGY RESEARCH
- Headache Classification Committee of the International Headache Society. The International Classification of Headache Disorders, 3rd edition. *Cephalalgia*. 2018;38(1):1–211. doi:10.1177/0333102417738202
- Zakrzewska JM, Linskey ME. Trigeminal neuralgia. *BMJ*. 2014;348:g474. doi:10.1136/bmj.g474
- Cruccu G, Finnerup NB, Jensen TS, et al. Trigeminal neuralgia: New classification and diagnostic grading. *Neurology*. 2016;87(2):220–228. doi:10.1212/WNL.0000000000002840
- Maarbjerg S, Di Stefano G, Bendtsen L, Cruccu G. Trigeminal neuralgia – diagnosis and treatment. *Cephalalgia*. 2017;37(7):648–657. doi:10.1177/0333102416687280
- Gronseth G, Cruccu G, Alksne J, et al. Practice parameter: The diagnostic evaluation and treatment of trigeminal neuralgia. *Neurology*. 2008;71(15):1183–1190. doi:10.1212/01.wnl.0000326598.83183.04
- Scalabrino G. Vitamin-regulated cytokines and growth factors in the CNS and peripheral nervous system. *J Neurochem*. 2009;111(6):1309–1326. doi:10.1111/j.1471-4159.2009.06407.x
- Sun W, Liu J, Zhang H. Anti-inflammatory mechanisms of *Commiphora mukul*. *J Ethnopharmacol*. 2018;223:1–10. doi:10.1016/j.jep.2018.05.012

- Whitaker IS, Rao J, Izadi D, Butler PE. Historical article: Hirudo medicinalis – ancient origins of leech therapy. J R Soc Med. 2004;97(9):437–438. doi:10.1258/jrsm.97.9.437
- Pathak NN, et al. Intranasal drug delivery to the brain: An overview. Pharmaceutics. 2020;12(9):1–23. doi:10.3390/pharmaceutics12090842
- Olesen J, et al. Pathophysiology of trigeminal neuralgia. Lancet Neurol. 2020;19(9):784–796. doi:10.1016/S1474-4422(20)30220-4

