



Sirovasthi: A boon in trigeminal neuralgia a case report

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Abstract

Trigeminal neuralgia (TN) is an exemplary condition of neuropathic facial pain. It's often described as a sharp shooting pain or like having an electric shock in the jaw, teeth or gums. It usually occurs in short, unpredictable attacks that can last from a few seconds to about two minutes. The attacks stop as suddenly as they start. In most cases trigeminal neuralgia affects part or all of one side of the face, with the pain usually felt in the lower part of the face. Very occasionally it can affect both sides of the face, although not usually at the same time. In Ayurvedic perspective this condition can be co-related with *Anantha vata* which has been described under the heading of shiro rogas. A case study of a male patient, 40 years old diagnosed with trigeminal neuralgia since 14 years was treated at National Ayurveda Research Institute for Panchakarma, Cheruthuruthy is discussed in this paper. A course of 49 days treatment was given to the patient at our institute. The treatment protocol comprised of snehana, Swedana, virechana, Abhyanga, Vasthi, karnapoorana, and Shirovasthi. After 49 days course of treatment, patient got remarkable relief in the severity and episodes of the attacks of the head ache.

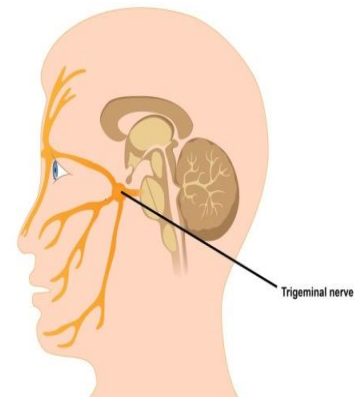
Keywords: *Anantha vata*, Trigeminal neuralgia, sirovasthi

Introduction

Trigeminal neuralgia is characterized by excruciating paroxysms of pain in the lips, gums, cheek, or chin and, very rarely, in the distribution of the ophthalmic division of the fifth nerve. The pain seldom lasts more than a few seconds or a minute or two but may be so intense that the patient winces, hence the term *tic*. The paroxysms, experienced as single jabs or clusters, tend to recur frequently, both day and night, for several weeks at a time. They may occur spontaneously or with movements of affected areas evoked by speaking, chewing, or smiling. Another characteristic feature is the presence of trigger zones, typically on the face, lips, or tongue, that provoke attacks; patients may report that tactile stimuli—e.g., washing the face, brushing the teeth, or exposure to a draft of air—generate excruciating pain. An essential feature of trigeminal neuralgia is that objective signs of sensory loss cannot be demonstrated on examination.

Trigeminal neuralgia is relatively common, with an estimated annual incidence of 4.5 per 100,000 individuals. Middle-aged and elderly persons are affected primarily, and 60% of cases occur in women. Onset is typically sudden, and bouts tend to persist for weeks or months before remitting spontaneously. Remissions may be long-lasting, but in most patients the disorder ultimately recurs.^[1]

The trigeminal nerve is the fifth cranial nerve. It is also the largest of all of the cranial nerves. The trigeminal nerve is the principal sensory nerve of the head innervating the skin of the face, mucosa of the mouth, nasal cavity, and paranasal sinuses, and most of the dura mater and the cerebral arteries.



It has three branches as follows:

1. Ophthalmic
2. Maxillary
3. Mandibular.

'Neuralgia' means pain in a nerve. Trigeminal neuralgia (TN) is a disorder of the trigeminal nerve that consists of episodes of unilateral intense, stabbing, electric shock-like pain in the areas of the face where the branches of the nerve are distributed – lips, eyes, nose, scalp, forehead, upper jaw or lower jaw. TN is not fatal, but it is universally considered to be one of the most painful afflictions known. Trigeminal neuralgia may occur in tumours of the trigeminal nerve (e.g. neuroma), with lesions affecting the trigeminal nerve at the cerebellopontine angle and in disseminated sclerosis or

cerebral neoplasms, and these cases are termed secondary or symptomatic TN (STN), when there may be detectable physical signs – initially a reduced corneal reflex, progressing to trigeminal sensory loss. Trigeminal neuralgia however, much more frequently has no clinically obvious neurological cause (termed idiopathic TN, or ITN) and is then usually ascribed to pressure on the trigeminal nerve from an adjacent but atherosclerotic artery. TN onset is mainly in the 50–70 year age group (STN tends to arise in younger patients).

People with this condition may experience attacks of pain regularly for days, weeks or months at a time. In severe cases attacks may occur hundreds of times a day. It's possible for the pain to improve or even disappear altogether for several months or years at a time (remission), although these periods tend to get shorter with time. Some people may then go on to develop a more continuous aching, throbbing and burning sensation, sometimes accompanied by the sharp attacks. Living with trigeminal neuralgia can be very difficult. It can have a significant impact on a person's quality of life, resulting in problems such as weight loss, isolation and depression. The main symptom of trigeminal neuralgia is sudden attacks of severe sharp shooting facial pain that last from a few seconds to about two minutes. The pain is often described as excruciating, similar to an electric shock. The attacks can be so severe that hampers the daily routine of the patient. Trigeminal neuralgia usually affects one side of the face. In rare cases it can affect both sides, although not at the same time. The pain can be in the teeth, lower jaw, upper jaw, cheek and, less commonly, in the forehead or the eye. The attacks usually start unexpectedly. After the main severe pain has subsided, the person can experience a slight ache or burning feeling and also have a constant throbbing, aching or burning sensation between attacks. There may be regular episodes of pain for days, weeks or months at a time. Sometimes the pain may disappear completely and not return for several months or years. This period is known as remission. However, in severe cases of trigeminal neuralgia attacks may occur hundreds of times a day and there may be no periods of remission.^[2]

Causes

Trigeminal neuralgia is usually caused by compression of the trigeminal nerve. This is the nerve inside the skull that transmits sensations of pain and touch from your face, teeth and mouth to your brain. The compression of the trigeminal nerve is usually caused by a nearby blood vessel pressing on part of the nerve inside the skull. In rare cases trigeminal neuralgia can be caused by damage to the trigeminal nerve as a result of an underlying condition, such as multiple sclerosis (MS) or a tumour. Typically the attacks of pain are brought on by activities that involve lightly touching the face, such as washing, eating and brushing the teeth, but they can also be triggered by wind – even a slight breeze or air conditioning – or movement of the face or head. Sometimes the pain can occur without any trigger at all.^[3]

Pathophysiology

Symptoms result from ectopic generation of action potentials in pain-sensitive afferent fibers of the fifth cranial nerve root just before it enters the lateral surface of the pons.

Compression or other pathology in the nerve leads to demyelination of large myelinated fibers that do not themselves carry pain sensation but become hyperexcitable and electrically coupled with smaller unmyelinated or poorly myelinated pain fibers in close proximity; this may explain why tactile stimuli, conveyed via the large myelinated fibers, can stimulate paroxysms of pain. Compression of the trigeminal nerve root by a blood vessel, most often the superior cerebellar artery or on occasion a tortuous vein, is the source of trigeminal neuralgia in a substantial proportion of patients. In cases of vascular compression, age-related brain sagging and increased vascular thickness and tortuosity may explain the prevalence of trigeminal neuralgia in later life.^[4]

In Ayurveda *Anantha vata*^[5] is described as a siro roga in which the tridoshas (three humours – vata, pitta and kapha) gets vitiated and lodges at the manya (near the jaw) region or at the greeva parshwas. (the two nadis on either sides of neck) and produces intolerable pain at the back of the neck, in the eyeball, in the frontal region, root of the nose and in the temporal region. The main nidanas (causative factors) explained are due to excessive fasting, excessive grief anger and intake of rough and cold food articles, inadequate intake of food etc, mainly the vata prakopa gets manifested associated with the other two doshas.

Case Presentation

A 40 years old male patient approached in the OP department of our hospital with recurrent episodes of relentless head ache which was diagnosed as trigeminal neuralgia and suggested admission in the hospital for further in patient treatment. The presenting complaints of the patient were:

- Intermittent pain over the right side of his face along the course of trigeminal nerve since past 14 years (severe since past 4 days)
- Difficulty in chewing, brushing, swallowing and speaking
- watering from the right eye occasionally

Patient was apparently healthy 14 years back. The first episode of pain appeared in 2003 which was like an electric shock kind of attack and the pain was mild in intensity and lasted upto one week. since then he was under the allopathic treatment, but the pain had recurred in 2008 which was lasted for about 2 months and in 2013 for a period of four months on and off pain appeared. Later in 2017 pain has recurred and in which the episodes and also the severity got increased which was persisting from days, weeks and even for about six months. No previous history of trauma, head injury or any facial bone fractures elicited. He was not getting any sort of relief by the contemporary systems of medicine; and the pain started hampering his daily routine hence approached our institution for the better management of this condition.

Personal History

- Patient was having good appetite and complains of bloating abdomen on and off. Bowels were normal. Micturition was normal and sleep was sound. (Disturbed only during the attacks of pain)

Examinations

General Examination

- Patient was having normosthenic appearance with normal

built and moderately nourished with pulse rate 68 b/min and BP –110/90 mm Hg, Respiratory rate -16 /min, height of 173 cm and weight was 74kg

- Tongue was uncoated
- Cyanosis, Clubbing, icterus, pallor and Lymph adenopathy were absent

Systemic Examination

Musculoskeletal Examination

- Gait – normal
- Arms- normal
- Legs – normal
- Spine – normal

Central nervous system examination

- Higher mental functions were normal.
- Speech was normal
- Cranial nerves were intact.
- No abnormalities were seen in any of the cranial nerves examinations.
- Trigeminal nerve examinations:
- Clenching of teeth – possible
- Blowing – possible
- Corneal reflex – normal
- Sensation of touch, pain and pressure over the face –

normal

- Vision – normal
- MRI report as per 3.05.2013 revealed that vascular loop adjacent to the cisenal part of the left trigeminal nerve without obvious compression.

Treatment Protocol

Total duration of the treatment: 49 Days

Internally

- deepana paachana (igniting the digestive fire) with panchakola choorna ^[6] 5gm BD for initial 2 days
- Snehapana (internal oleation) with plain ghee was given for 7 days
- Virechana with eranda taila ^[7] 30 ml
- Dhanadanayanaadi kashaya ^[8] - 90 ml BD before food
- Dhaanwantharam taila ^[9] 10 drops with kashaya

Materials and Methods

Externally

- *Abhyanga* with *ksheerabala taila* ^[10] for 7 days
- *Karnapoorana* with *dhanwantharam taila* for 7 days
- *Mathra vasthi* was given with *dhanwantharam taila* for 7 days
- *Sirovasthi* with *ksheera bala taila* for 14 days

Table 1

Date	Kriya karma	Medicine used	Duration	Remarks
24.10.17	Matra vasthi	Dhanwantharam taila	7 days	No remarkable change
29.10.17	Karnapoorana	Dhanwantharam taila	7 days	Slight relief in pain
4.11.17	Abhyanga and Sweda	Ksheerabala taila	7 days	Feeling better
12.11.17	Siro vasthi	Ksheerabala taila	7 days	Pain decreased, pt feels satisfactory and sleep improved
21.11.17	Siro vasthi	Ksheerabala taila	7 days	Pain decreased, calmness of mind and improvement in sleep

Table 2: Internal medications

Date of Starting	Name of the Medicament	Form & Dosage	Reason for selection	Changes noted in Main Symptom	Other Untoward/ Specific findings	Date of stopping	Reason for stopping
8.10.17	Panchakola choorna	Powder 10gm	Deepana pachana		Nil	10.10.17	Samyak rookshana attained
11.10.17	Plain gritha	Ghee 30 ml to 250 ml	Snehana	Slight relief in pain	Nil	17.10.17	Samyak snigdha lakshana attained
21.10.17	Eranda taila	(Oil) 30ml	Virechana		Nil	21.10.17	Samyak virechana attained
23.10.17	Dhanadanayanaadi kashaya	Kashaya (liquid)60 ml	Samana	Relief in pain	Nil	27.11.17	Continued
22.10.17	Dhanwantharam taila	(Oil)10 drops	Brimhana	Relief in pain	Nil	27.11.17	Continued

During the period of the treatment the patient had followed strict diet and medicines regularly.

Observation & Result

- Treatment was given for 49 days totally.
- After the initial phase of 7days of snehapana (intake of ghee) and swedana (sudation) there was slight reduction in the pain but was still persisting.
- After virechana (purgation) and abhyanga (oleation) he was feeling very mild variation in the pain.
- Mathra vasthi (medicated enema) was given subsequently which has indistinctly subsided his pain.

- After that karnapoorana was done for 7 days which was significantly effective in reducing the pain.
- Agni karma (cauterisation) was done along the right side of the face which slightly altered his pain but not upto a significant level.
- After a span of 14 days of shirovasthi (retaining the medicated oil over the head) improvement was observed in the parameters like pain in the right side of his face and temporal region and difficulty in brushing, chewing, swallowing and also his sleep got improved. The patient was experiencing tranquillity of mind and a very much significant decrease in pain.

Table 3

Assessment Chart								
Parameters	Day of treatment							
	1	7	14	21	28	35	42	49
Pain along the course of the nerve in the face	10	10	8	8	8	6	4	2
Difficulty in chewing, talking and brushing	10	10	8	8	8	6	4	2
Pain during morning	10	9	8	8	5	5	4	2
Burning pain	10	9	8	8	5	5	4	2
Disturbed sleep due to pain	8	8	6	6	4	2	0	0

(Maximum score for each parameter was given 10 and minimum was 0)

Discussion

Vitiation of the vata dosha is the foremost cause for this sisoroga. The causative factors for this condition was the irregular life style and unhealthy habits of this patient. Due to his busy work schedule, he often takes food very late and he was addicted to alcohol and smoking. Most of the days he sleeps very late and sleep for few hours only. In charaka samhitha Acharya has quoted the causative factors such as fasting, excessive anger and excess intake of cold rough articles etc. which was very much evident from the history of this patient. All the above said factors contributed to the vitiation of the vata associated with the pitta and kapha doshas lead to the manifestation of this condition. The treatment protocol described in the classics were snehapana, mridu virechana, sneha vasthi, dahana, nasya, lepana and snehika dhoomapana and sirovasthi.^[11] The treatment protocol of this patient was comprising of the most of the proposed procedures in the Ayurveda classics. Regardless of all the treatment modalities adopted, sirovasthi has showed the prime effect on arresting his pain. All other treatment measures starting from snehapana was imparting only slight distinction with regarding to the general wellbeing of this patient. But after the very first day of sirovasthi, his pain was tremendously decreased and his sleep was also improved. His blood pressure which was highly fluctuating earlier has come down within normal range and got stabilised and a sort of calmness of mind was also accomplished. Sirovasthi which is one among the murdha tailas^[12] possess the ultimate potency among the four treatment modalities in the head, confers clarity of sense organs, gives strength to the voice, lower jaw and head. Sirovasthi^[13] is specially indicated in case of (daruna sisorogas) dreadful diseases of head where the prognosis is bleak. Ksheerabala taila which has got the supreme command over the vata rogas was used for shirovasthi. It is vata pitta samana and guru snigdha (heavy and unctuous) in guna (quality) which is opposite to the vata qualities thereby capable of mitigating the prakupitha vata dosha. Hence beneficial in neurological origins of pain. Also imparts nourishment to the sense organs and strengthens all the sense organs. It also facilitate rejuvenating effect to the body tissues.

Conclusion

After a course of 49 days, patient got remarkable symptomatic relief. The study throws gleam on the effect of *sirovasthi* in trigeminal neuralgia. Trigeminal neuralgia which is known as

the suiciding disease is one of the most dreadful disease of head. Life becomes the most cumbersome with this disease. So the best management ever in this case has to be highlighted amongst the scenario of treatments given to the patient for a span of 49 days is the fundamental objective of this paper. Undoubtedly it is evident that the *sirovasthi* served really like a boon in the management of trigeminal neuralgia in his case. This treatment protocol for *Anantha vata* can be implemented in similar cases and thereby we can improve the quality of life of such patients especially in early stages of this disease thus aiding them to surmount the ruthless pain. This study has to be further conducted in large samples in order to validate precisely about the efficacy of this treatment protocol.

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References

1. Mc-grawhill, Harrison's Principal of Internal Medicine, 18th edition chapter 376.
2. www.medicinenet.com
3. www.ninds.nih.gov
4. Mc-grawhill, Harrison's Principal of Internal Medicine, 18th edition chapter 376.
5. Sushruta, Sushruta Samhita. Nibandha Samgraha Commentary of Sri Dalhanacharya and Nyaya Chandrika Panjika on Nidanasthana Commentary of Sri Gayadasacharya, by; Vaidya Yadavji Trikrumji Acharya, Choukambha Surabharati Prakashan, Varanasi, reprint, sloka, 2013, 13-14, Pp. 924, Page no 655.
6. Vagbhata, Astanga Hrudaya. Sarvanga Sundara Commentary of Arunadatta and Ayurveda Rasayana Commentary of Hemadri, edited by; Pandit Hari Sadasiva Sastri Paradikara Bhisagacharya, Choukambha Surabharati Prakashan, Varanasi, reprint, 1st chapter, 25th sloka, 2010, 166, Pp. 956, Pg. no120.
7. Vagbhata, Astanga Hrudaya. Sarvanga Sundara Commentary of Arunadatta and Ayurveda Rasayana Commentary of Hemadri, edited by; Pandit Hari Sadasiva Sastri Paradikara Bhisagacharya, Choukambha Surabharati Prakashan, Varanasi, reprint, sloka, 2010, 58, Pp. 956, Pg. no 78.
8. Dr. Nishteswar K, Dr. Vaidyanath R. Sahasrayogam, Choukambha Sanskrit Series Office, Varanasi, 1st edition, 2006; 540:47.
9. Vagbhata, Astanga Hrudaya. Sarvanga Sundara Commentary of Arunadatta and Ayurveda Rasayana Commentary of Hemadri, edited by; Pandit Hari Sadasiva Sastri Paradikara Bhisagacharya, Choukambha Surabharati Prakashan, Varanasi, reprint. 2010; 52, 956:383.
10. Vagbhata, Astanga Hrudaya. Sarvanga Sundara Commentary of Arunadatta and Ayurveda Rasayana Commentary of Hemadri, edited by; Pandit Hari Sadasiva Sastri Paradikara Bhisagacharya, Choukambha Surabharati Prakashan, Varanasi, reprint. 2010; 46,

956:732.

11. Sushruta, Sushruta Samhita. Nibandha Samgraha Commentary of Sri Dalhanacharya and NyayaChandrika Panjika on Nidanasthana Commentary of Sri Gayadasacharya, by; Vaidya Yadavji Trikrumji Acharya, Choukambha Surabharati Prakashan, Varanasi, reprint. 2013; 37, 924:658.
12. Vagbhata, Astanga Hrudaya. Sarvanga Sundara Commentary of Arunadatta and Ayurveda Rasayana Commentary of Hemadri, edited by; Pandit Hari Sadasiva Sastri Paradikara Bhisagacharya, Choukambha Surabharati Prakashan, Varanasi, reprint. 2010; 35, 956:302.
13. Vagbhata, Astanga Hrudaya. Sarvanga Sundara Commentary of Arunadatta and Ayurveda Rasayana Commentary of Hemadri, edited by; Pandit Hari Sadasiva Sastri Paradikara Bhisagacharya, Choukambha Surabharati Prakashan, Varanasi, reprint. 2010; 26, 956:302.