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TREATMENT MODALITIES FOR TRIGEMINAL NEURALGIA – A REVIEW

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ABSTRACT

Trigeminal neuralgia (TN) is also known as Tic douloureux and is most common among the cranial neuralgias. Most of the times, it affects individuals older than 50 years of age. It has typical features of unilateral facial pain, episodes of intense shooting, stabbing pain that lasts for a few seconds and then there is a pain free period. Treatment may include medicines, brain surgery or radiation therapy. Carbamazepine is the drug of choice. If medicines are not effective or side effects are intolerable then surgery is the choice. But it is associated with complications in most cases after surgery and also pain episodes may recur after some years. Recently LASERs are used as adjunctive in the treatment of TN for reduction of pain intensity. Ayurveda plays important role in management and for better quality of life of TN patients. In Ayurveda *Panchkarma* is the best treatment modality for stopping recurrence of disease and being healthy ever. So here an attempt is made to summarize the available treatment modalities for TN.

KEYWORDS: Carbamazepine, LASER, Ayurvedic management, Panchakarma, Ananta Vata.

INTRODUCTION

The trigeminal nerve is one among 12 pairs of cranial nerves. The nerve has three branches that conduct sensations from the upper, middle, and lower portions of the face. The ophthalmic, branch provides sensation to most of the scalp, forehead, and front of the pinnacle. The maxillary branch passes through the cheek, maxilla, upper lip, teeth and gums, and to the nose. The mandibular branch passes through the mandible, teeth, gums, and lower lip.

Trigeminal neuralgia (TN) is defined by the International Headache Society (IHS)[1] as ‘‘unilateral disorder characterized by brief electric shock-like pains, abrupt in onset and termination, and limited to the distribution of one or more divisions of the trigeminal nerve’’

Causes

The trigeminal nerve is a mixed type of cranial nerve responsible for sensory functions like pressure, temperature, and pain and it is also responsible for the motor function of the muscles of mastication. Demyelination of the myelin sheath of the nerve fiber due to compression, injury or due to other causes leads to the disturbance in the conduction system of the nerve is the possible cause of the pain syndrome. This can lead to pain episodes at the slightest stimulation of any area supplied by the nerve and also hinder the nerve’s ability to stop the pain signals after the stimulation ends. This type of injury may also rarely be caused by an aneurysm (an out pouching of a blood vessel); by an AVM (arteriovenous malformation), multiple sclerosis, by a tumor; such as an arachnoid cyst or meningiomas, by a traumatic event such as an accident or even brainstem diseases from strokes, Post herpetic neuralgia, which occurs after shingles, may cause similar symptoms if the trigeminal nerve is damaged.

Short-term peripheral compression is often painless. Persistent compression results in local demyelination with no loss of axon potential continuity. Chronic nerve entrapment results in demyelination primarily, with progressive axonal degeneration subsequently.

When there is no apparent structural cause, the syndrome is called idiopathic.[2]

Signs and Symptoms of Trigeminal Neuralgia

This disorder is characterized by episodes of intense facial pain along the trigeminal nerve divisions. Any one or all the three branches of the nerve may be affected at a single time. Trigeminal neuralgia (TN) most commonly

involves the maxillary nerve and mandibular nerve of the trigeminal nerve. TN presents as attacks of stabbing unilateral facial pain, most often on the right side of the face. The number of attacks may vary from less than 1 per day to many times per hour and up to hundreds per day.[2]

Trigeminal neuralgia is characterised by severe pain within the face, intermittent twinges of delicate pain, severe episodes of shooting type pain resemble electrical shocks experienced many times in a day, spasms of pain that last from a few seconds to a few minutes, pain experienced along the distribution of the nerve, together with the forehead, eyes, lips, gums, teeth, jaw and cheek, attacks of pain that occur additional frequently and intensely over time, tingling or numbness sometimes experienced within the face before pain develops.

Triggers of pain attacks include the following: Chewing, talking, or smiling, drinking cold or hot drinks, touching, shaving, brushing teeth, blowing the nose, encountering with cold air or breeze.[2]

Pain localization is as follows: Patients can localize their pain precisely, the pain commonly runs along the line dividing either the mandibular and maxillary nerves or the mandibular and ophthalmic portions of the nerve, in 60% of cases, the pain shoots from the corner of the mouth to the angle of the jaw, in 30%, pain arises from the upper lip or canine teeth to the eye and eyebrow, sparing the orbit itself, in less than 5% of cases, pain involves the ophthalmic branch of the facial nerve.[2]

The pain has the following qualities: Characteristically severe, paroxysmal, and lancinating, with the sensation of electric shock, which usually lats upto 20-30 seconds to an excruciating discomfort, begins to fade within seconds, lacking behind a burning ache like symptoms lasting seconds to minutes.[2]

The latest classification of the International Headache Society3 distinguishes between classic and symptomatic TN. Classic TN (CTN) includes all cases without an established etiology (i.e., idiopathic, as well as those with potential vascular compression of the fifth cranial nerve). The diagnosis of classic TN also requires that there be no clinically evident neurologic deficit. The diagnosis of symptomatic TN (STN) is made when investigations identify a structural abnormality other than potential vascular compression affecting the trigeminal nerve. Such abnormalities include multiple sclerosis (MS) plaques, tumors, and abnormalities of the skull base.[2]

The pain resulting from TN imposes a substantial burden on patients. During severe attacks, affected patients may be unable to speak or eat. Even between attacks, some patients are gripped by an overwhelming fear that the pain could suddenly return at any time.[3] This poses serious impairment in daily function and reduces quality of life. Pain severity correlated with reduced measures of daily functioning, quality of life, well-being, sleep, mood and overall health status.[3] Depressive symptoms are frequent in patients suffering from TN.

Treatment

The preferred medical treatment for TN consists of anticonvulsant drugs, muscle relaxants and neuroleptic agents. For patients refractory to medical therapy, Gasserian ganglion percutaneous techniques, gamma knife surgery and microvascular decompression are the most promising invasive treatment options.[3]

First-line therapy is carbamazepine (CBZ). The effect of CBZ may relate to the blockade of voltage-sensitive sodium channels resulting in the stabilization of hyper-excited neural membranes, inhibition of repetitive firing or reduction of propagation of synaptic impulses.[3] The effective dose in newly diagnosed TN is less than that required in cases of epilepsy. In some patients pain may resolve on as little as 100 mg two to three times a day.[3] For the remaining patients the dose is increased by 100mg every other day until adequate pain relief is established or until intolerable side effects prevent further upward titration. Typical maintenance doses range from 300 to 800 mg/day divided into two to three daily doses.[3] Common initial side effects include drowsiness, nausea, dizziness, diplopia, ataxia, elevation of transaminases and hyponatremia.[3] Potentially serious but uncommon side effects are allergic rash, myelosuppression, hepatotoxicity, lymphadenopathy, systemic lupus erythematosus, Stevens_Johnson syndrome and aplastic anaemia.[3] Complete blood count, serum sodium and liver function test should be performed within several weeks after initiation of treatment to detect complications in a timely manner.[3]

Oxycarbamazepine (OXC) is a keto-analogue of CBZ that is rapidly converted into its pharmacologically active 10-monohydroxy metabolite and only weakly induces hepatic enzymes.[4] This leads to a much better side effect profile.[4] OXC is an acceptable alternative to CBZ and is initiated at 150mg twice daily and increased as tolerated by 300mg every 3 days until pain relief is accomplished. Maintenance doses range between 300 and 600mg twice daily.[3]

Other antiepileptic drugs (AEDs) which have suggested benefit are phenytoin, clonazepam, gabapentin, pregabalin, topiramate, levetiracetam and valproate as well as tocainide (12 mg/day).[5] Gabapentin showed adequate efficacy alone and in combination with local injections of ropivacaine used to block trigger points in TN patients.[6] Gabapentin is initiated at 300mg daily and may be gradually increased by 300mg each 2-3 days as tolerated. Gabapentin has no interaction with other drugs and relatively minor side effects that may include dizziness, somnolence, headache, diarrhoea, confusion, nausea and ankle swelling. Pregabalin (150-600 mg/day) proved to be effective in reducing TN pain by over 50%

in 74% of patients with minor efficacy reduction over the 1year observational period.[7] Patients without concomitant facial pain showed better response rates (32 out of 39, 82%) compared with patients with concomitant chronic facial pain (7 out of 14, 50%, p¼0.020).[7] Topiramate (100-400 mg/day) was effective in 75% of patients in a very small sample of only eight patients.[8] A very recent pilot study investigated the efficacy and tolerability of levetiracetam in 10 patients with TN over a period of 10 weeks in an open-label prospective design. Patients were treated with up to 4000mg daily and 40% (n¼4) reported an improvement of 50_90%.[9] Tizanidine is a centrally acting alpha-adrenergic agonist and has proven efficacy in a double-blind crossover study in 8 out of 10 patients with TN. All patients that were followed-up after 1-3 months experienced recurrence of pain.[10] Tizanidine is less efficacious than CBZ.[11] Several descriptions postulated an analgesic effect of botulinum neurotoxin type A (BoNT-A) through local release of anti-nociceptive neuropeptides such as substance P, glutamate and calcitonin-gene related peptide (CGRP) inhibiting central and possibly peripheral sensitization.[12] Reports of isolated TN patients treated with BoNT-A showed significant relief from symptoms after treatment with BoNT-A. Mean BoNT-A dose was 3.22 units/cm2 administered directly into the affected facial regions subcutaneously. At 60 days follow-up the pain began to slowly return in most patients.[13]

Surgical treatments are generally reserved for patients with debilitating pain refractory to an adequate trial of at least three drugs including CBZ in sufficient dosage. Surgical treatment modalities include Percutaneous procedures on the Gasserian ganglion, gamma knife and microvascular decompression. Surgery for TN is either destructive (ablative), where the trigeminal nerve sensory function is intentionally destroyed, or non-destructive, where the trigeminal nerve is decompressed preserving its normal function.[3]

LASER (light amplification by stimulated emission of radiation).

Laser is used in cases of surgeries which causes less bleeding with minimal of discomfort and post operative pain. But laser which is used for treating TN is low intensity level laser which has healing effect on the cells.

Low-level Laser Therapy (LLLT)

Low-level laser therapy (LLLT) is a treatment strategy which uses a single wavelength light source. Laser radiation and monochromatic light may alter cell and tissue function.[17,18] Clinical studies of the effects of LLLT on injured nerves have revealed an increase in nerve function and improved capacity for myelin production. LLLT has also been shown to be effective for promoting axonal growth in injured nerves in animal models.[14]

Low-power lasers (soft, cold) have no thermal effect on tissues and produce a reaction in cells through light, called photobiostimulation or photobiochemical reaction.[15] Output power of these lasers is less than 500 mW. The critical point that differentiates low power lasers from high-power ones is photochemical reactions with or without heat. The absorption of low intensity laser light by biological systems is of a purely non-coherent (i.e., photobiological) nature at the cellular level, biological responses are determined by the absorption of light photo acceptor molecules.[15]

Different mechanisms have been considered for the pain attenuation of the low-level lasers include effect on prostaglandin (PG) synthesis, increase in the change of PG type G and PG type H_2 into PG type I_2, increase in beta-endorphins level in CSF, increase in glucocorticoids urinary secretion (gluco-corticoids are beta-endorphin synthesis inhibitor), increase in pain threshold in nerve fibers, increase in serotonin urinary secretion, decrease in histamine and serotonin secretion, decrease in bradykinin syn-thesis (pain inducer substance), change in norepi-nephrine and epinephrine activity, increase in ATP production, increase in local microcirculation, lymph node circulation enhancement and edema decline.[15]

Also, LLLT can modulate inflammatory pain by reducing levels of biochemical markers (PGE2, mRNA Cox 2, IL-1β, TNF-α), neutrophil cell influx, oxidative stress, and formation of edema and hemorrhage in a dose-dependent manner.[15]

Currently the following analgesic effects are recognized: - Anti-inflammatory. LLLT reduces oxidative stress: Mitochondria in stressed or ischemic tissues produce nitric oxide (mtNO) that binds to cytochrome oxidase competitively displacing oxygen leading to oxidative stress and reduced ATP production. Light of suitable wavelength, sufficient irradiance and time when applied to injuries is absorbed by cytochrome oxidase displacing mtNO thereby reducing oxidative stress and increasing ATP production. A cascade of downstream metabolic effects lead to a reduction in inflammatory markers including prostaglandin E2, interleukin 1β and tumor necrosis factor α.[15]- Analgesia. LLLT creating a nerve block. Higher energy can induce an analgesic effect by disrupting fast axonal transport in small diameter fibers, in particular nociceptors. This temporary (reversible) inhibition of A-delta and C fiber transmission reduces tonic peripheral nociceptive afferent input and facilitates reorganization of the modulation of synaptic connections. Repeated treatments lead to a reduction in central sensitization.[15]

Ayurvedic Perspective

Ayurveda is an ancient philosophy based on a deep understanding of eternal truths about the human body, mind and spirit. Unlike orthodox medicine, it is not based on the frequently changing findings of specific research projects, but rather on permanent, wise, eternal

principles of living. It is the oldest healing system known and also the most complete. Its logical commonsense approach to health and living is combined with philosophy, psychology and spiritual guidance.

Ayurveda has an armoury of physical treatments, from medication to massage, yoga, cleansing and detoxification programmes and remedies for such disorders as infertility, impotence, arthritis, chronic illnesses and infectious diseases. It offers natural, herbal remedies which counteract imbalances in the body and can successfully treat most health problems encountered in the West today.

Brief History

Tradition relates that in India of three thousand years ago, a group of fifty two wise and holy men left their villages and towns and went to live in the foothills of Himalayas, where they aimed to learn how to eradicate illness and disease from the world. These men were known as the 'Rishis' meditated together and from their meditation they acquired the knowledge which was then confined as 'Ayurveda'. Subsequently, the Ayurvedic system was written down and was believed to be divinely inspired. The principle text, known as the 'Charaka Samhita' is regarded as sacred, opens with description of the Rishis meditation.

According to the Charaka Samhita, Rishis elected one of their member 'Bharadwaja', to entreat Indra (Hindu Warrior – The king of the Heavens and a good wiseman in the treatment of the disease) to impart the secrets of Health and Longevity. Indra was believed to have acquired his knowledge from the heavenly physicians (Ashwini Kumaras), who in turn had acquired knowledge from the supreme god 'Brahma'.

Three Sutra Ayurveda: The knowledge acquired by the Rishis had three aspects –

1. Hetu (Etiology – The science of the causes of disease)
2. Linga (Symptomatology – The study and the interpretations of symptoms)
3. Aushadha (Medication)

Pancha Mahabhuta and Tridosha Siddanta

Ayurveda's most powerful tenet is that nothing functions as in isolation and where there is imbalance; the result is illness and disorder. The universe consists of five elements (Pancha Mahabhuta) – Earth (Pruthvi), Water (Aap/Jala), Fire (Teja/Agni), Air (Vayu) and space (Akasha). The human body is also composed of a combination of them. Furthermore three principles bio energies (Doshas) are composed of different combinations of Pancha Mahabhutas. Their influence affects all mechanisms of the body.

The three Doshas and their compositions are,

1. Vata - Air and Space (Vayu and Akasha)
2. Pitta - Fire and Water (Agni and Jala)
3. Kapha – Water and Earth (Jala and Pruthvi)

Ayurvedic medicine is based on the concept of three Doshas. Since Doshas do not have a English equivalent term they are commonly taken to mean roughly 'Force or Fault'. So these doshas are bodily energies (Sometimes called 'Bio Energies') which influence all the living matter and mental energies too. Because the term means Fault - it is understood that any imbalance will lead to the disorder in the body or the mind.

Ayurvedic treatment involves removal of the causative factors and bringing the functions/doshas into balance.[16] For this, ayurvedic medicines, diet and activities (mental and physical) are also understood in terms of vata, pitta and kapha. Medicines are categorized according to their action on either one or two or all the three doshas.[16]

Vata Dosha: It corresponds to the nervous system and in modern times the functions of Vata are said to be equivalent to the actions of Neurotransmitters in the brain. Vata is considered to be most influential of all the Doshas as it guides all bodily functions and is the main principle of moment in the body. It is connected with activity and vitality, controls the empty spaces within the body (the Sinuses, Abdominal Cavity etc) and the nervous system. It guides the activities of the brain and the motor organs. An excess of Vata energy may result in dehydration and associated problems.

Pitta Dosha: It governs the Generation and Conservation of the body heat, digestion, metabolism and intelligence. The main seat of Pitta is stomach.

Kapha Dosha: It regulates water based functions in the body and governs Strength and the Mass. It lubricates the joints and maintains the body's immune system.

Aacharya Charak described 5 types of Shirorogas (diseases of head) - Vataja, Pittaja, Kaphaja, Sannipataja, Krimija in Kiyantashirahsiyam Adhyaya and 4 types of Shirorogas - Ardhavbhedak, Suryavart, Anantvata, Shankha in Trimarmiya Siddhi Adhyaya.[17] Acharya Sushruta and Vagbhatta have described 11 types & 10 types of Shiroroga respectively.[17] Among them Anantvata can be compared with TN[17] i.e Tridhara naadi shoola.

Ananta Vata

Description of the Trigeminal Neuralgia (Ananta vata) according to Ayurveda

It is one of the Shiroroga as mentioned by Acharya Charaka, Sushruta and Vagbhata. Among the types of Shirorogas Ananta Vata can be compared with Trigeminal Neuralgia - i.e. **Tridharanadishoola**. Here the area of pain is the area of **Panchama shiraska nadi** (Fifth Cranial nerve).

Ananta Vata in the textual references of Ayurveda under the following symptomatology, Akshi-Bhru Shoola – terminologies indicate the area of pain seen in the first branch of Trigeminal nerve (Ophthalmic Branch).

Hanumanya Shoola, Gandaparshva Shoola, Gandakampa – terminologies indicate the area of pain seen in the second branch of Trigeminal Nerve (Maxillary branch).

Hanusandhi Shoola, Gandaparshva Shoola, Hanugraha and Shankhapradesh Peeda -terminologies indicate the area of pain in the third branch of Trigeminal nerve (Inferior Maxillary Branch).

On observing the similarities in the area and the pattern of the pain both in Trigeminal Neuralgia and Ananta vata – We Ayurvedic faculties consider the Ananta vata as Trigeminal Neuralgia.

Etiology[18]

1. Upavasa (Fasting)
2. Atyadhika Shoka (Grief, Excessive weeping)
3. Ati Ruksha Bhojana (Excessive dry food, completely devoid of fat content)
4. Atyalpa Bhojana (very less quantity of food intake)
5. Ati Sheeta Bhojana (Excessive cold food, Freezed)
6. Tridosha Karaka Ahara and Vihara (food stuff and activities which aggravate the Tridoshas)

Pathogenesis[19]

The above mentioned etiological factors lead to Vitiation of Tridoshas, these vitiated Tridoshas pass through the neck region (Manya) and Back of the neck (Ghata) at last these will get lodged in the region of Akshi (Eye), Bru (Eye brow) and Shankha (Temporal region).

Symptoms[19]

1. Severe pain in the eye, eye brows and the temporal region.(Rujam suteevram kurvanti SaakshiBhruvi Shankhadeshe).
2. Acute unilateral facial pain (Karotyaashu Visheshastu Gandasya paarshwe tu).
3. Lock jaw/Stiffness of the jaw (Hanugraha).
4. Eye diseases (Lochanajaamcha Rogaan).

Here the area of pain is the area of 5th Cranial Nerve i.e. Panchama Shiraska Nadi. The pain occurs/attacks in the form of severe headache or dull aching pain (paroximal) starting either from the area of nostril or area below the eyes and spreads/ radiates (unilaterally) all over the area of 5th Cranial Nerve. Pain may persist for few seconds up to few Minutes/hours. In some patients, pain may be intermittent or continues. Nature of Pain may vary from Severe, shooting, Burning or penetrating pain.

Treatment[20,21]

1. Intake of medicated ghee after food (Snehapana after Bhojana)
2. Medication through Nasal Route (Nasya)
3. Purgation (Kayavirechana)
4. Oil treatment over head (Shiro Abhyanga, Basti, Pichu etc.)
5. Poultice made up of Flesh of dry land animals and birds. (Upanaha)
6. Pouring and Sprinkling of medicated ghee along with milk over the head (Shirodhara).
7. Medicated ghee processed in milk along with flesh of Peacock, quail etc birds and paste of herbs (Jeevaneeya gana) – as Shamanoushadhi
8. Bloodletting in temporal region (Siravyadha).
9. Food stuffs which pacify the Tridosha.
10. Honey, watery part of Curds (Dadhi Mastu) and ghee should be used along with the food.

1. Snehapana after Bhojana- Intake of Medicated Ghee: Generally **Snehapana** nourishes the Majjadhara Kala (A thin layer like tissue between Scull and Brain) which in turn stimulates the Pittadhara Kala. This activated Pittadhara Kala (Grahani) enhances the Pachakagni (Digestive Power) and normalizes the functions of Grahani (Duodenum), so that it leads to better absorption and assimilation of Medicines in the GIT. Ultimately internal administration of Medicated Ghee promotes the digestion of both Food and the Medicine.

Sneha has Snigdha, Guru, Mridu, Sara, Sukshma Gunas which help in restoring the imbalance of Vata and to improve the microcirculation within the nerve.

2. Nasya (Medication through the Nasal Route): NASYA- Anantavata is an Urdhvajatrugata Vikara. Nasya is a specific treatment for Urdhvajatrugata Vikaras. So, drug administered through Nasa can reach to Shira (especially the centers of the Brain) and pacifies Vata. Nasya with Mahanarayana Taila or 101 Aavarti Ksheera Bala Taila seems to be beneficial. Even administration of Puran Ghrita, in the form of Nasya is highly beneficial because it has intense Sukshma (Penetrating) property by which it can reach up to minute capillaries in the brain and stimulates the normal functioning of nervous system. It also has shoolaghna (analgesic) effect.

3. Purgation (Kayavirechana): Vaman (medicated emesis therapy) and Virechana (medicated purgation therapy) both are the procedures for Shodhana. Vaman is contraindicated in Shiroroga, but Virechana is indicated in Shiroroga as prescribed by all Acharyas.[14] So Virechana, Particularly Mridu Virechana is advisable for old age or sensitive patients. Snehana (administration of Medicated Ghee) and Swedana (herbal fomentation or steaming) – Poorvakarmas (pre-procedures) should be done before Virechana according to Prakriti and Agni of patient.

Virechana Yoga: Castor oil and milk in required dose according to patient.[15] Particularly this Yoga is beneficial because it does both Vatanulomana (downward movement of vata) and Pitta rechana (expellation of vitiated Pitta Dosha), especially in case of Pittanubandhi vata.

This purgation therapy also does the Shrotoshodhana (cleaning of GIT), which facilitates the better absorption of the medication so that one can observe the better results with Shamanoushadhies.

4. Oil treatment over head (Shiro Abhyanga, Basti, Pichu etc.): Shiroabhyang- Abhyang is beneficial when Sparshanendriya (skin) is affected. Here in TN intense pain is observed which is due to vitiation of Vata Dosha and disturbed Sparshanendriya Karma. So Abhyang with Mahanarayana Taila, Bala-Ashvagandhadi Taila seems to be effective.

Medicated Oil massage over the Head causes the friction and liberates the heat. That increased temperature facilitates the better absorption of the Medicine. At the same time it stimulates the secretion of **Serotonin Hormone**, which acts as Tranquilizer. Such induced sleep also supports in reducing the Pain.

Shirobasti and Shiropichu **–** (Keeping the Medicated Ghee or Oil over the Head).

Shirobasti and Pichu with Processed/Medicated Oils- provide nourishment to the Shiromajja (Mastulunga-Bone Marrow in the Skull) – by which Vitiated Vatadi Doshas get normalized.

5**. Upanaha** (Poultices made up of flesh of Dry land Animals and Birds): Upanaha, helps to liquefy the deep routed vitiated Vatadi Doshas in the Head – expels them in the form of secretion.

6. Siravyadha (Bloodletting by Venous Puncture): it is a para surgical procedure for bloodletting in Ayurveda. It is best indicated as Sarvadoshahara (treats all types of Doshas) and Sarvangagata Vyadhihara (Capable to treat diseases in any part of the Body).

Siravyadha helps in reducing the Pain and Numbness. In case of Raktaavruta Vata (covring/mask of vikruta Rakta over Vata) – vitiated Blood causes severe pain and obstruction in the normal functioning of Vata, which leads to Shroto-avaroodha (Obstruction of Channels). By decreasing the pressure over the nerve endings through Siravyadha, it helps to clears the channels and normalizes the Vitiated Vata. That's how the Pain and Numbness get reduced automatically.

7. Shirodhara (Pouring and Sprinkling of medicated ghee along with milk over the head): Shirodhara is an amazing, unique therapy from the system of Ayurveda. It has profound impact on the nervous system i.e. the treatment directly and immediately calms, relaxes and has a cleansing effect on the mind and Nerves. It also stimulates the energy centers like, Agya chakra and Sahashrara Chakra. It nourishes the Hypothalamus, mainly activates the Pituitary gland and enhances blood circulation in the head. Shirodhara creates pressure/friction over the Sthapani Marma – which in turn stimulates the nerve fluxes at that site, so that the Vata gets normalized and helps to reduce the pain and discomfort.

Sthapani Marma – It is a type of Vishalyaghna Marma, situated at Glabella (Brumadhya). It is the site Agya Chakra.

8. Tridosha shamaka Ahara –Vihara: Bring back the Vitiated Doshas to their Normal status (Prakruta avastha).
Madhu (Honey) – Treats Kapha Dosha
Dadhimastu (Watery part of Curds) – Normalizes the Tridoshas.
Ghruta (Ghee) – The best one to treat the Pittadosha, also Stimulates Pachakagni (Digestive power).

Thus Ayurvedic treatment of Trigeminal neuralgia consists of herbal oils for restoring the imbalance of Vata and improve the microcirculation within the nerve, so that the nerve starts functioning at an optimum level, and all abnormal pain sensations are brought down to the acceptable levels. Ayurvedic medicines are also prescribed, which act on the Trigeminal nerve and reduce the irritability and perception of the pain. This helps in gradual reduction of the pain experienced by the patient.

Here Vikruta Vata is the main responsible factor for all types of pains in our body. All these treatments mainly pacify/normalize Vata Dosha and nourish Shirah (Head). Mainly the drugs having Snigdha Guna are used here, which are opposite to the Rooksha Guna of Vata. Thus Vata i.e. the whole nervous system gets treated and normalized. The nourishment provided by these treatments to the nervous system will rejuvenate all types of tissues in brain, thus automatically stimulating the normal functioning of the system.

CONCLUSION

There are many studies which show their effectiveness in the treatment of TN and also newer advances in the medicines which have better effect on TN. Still there are cases where there is less response or no effect in the pain reduction. Ideally for such cases surgery is considered as treatment option. Before going for the surgical option, other treatment modalities should be taken into consideration. In that regard we have LASERs, which have their effect in reducing pain intensity as well aid in healing mechanism. The Ayurveda, the oldest medical science can also be considered in the treatment options which show no side effects and believes in correcting overall systemic health through correction of doshas.

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