Ayurvedic management of trigeminal neuralgia through cannabis: A case report W.S.R.
to Anantha vata

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Abstract
Trigeminal neuralgia is a condition that is characterized by severe and unrelenting pain. It was once considered a suicide disease. The condition is managed through various medications and surgical procedures. As per Ayurvedic classics this condition has close proximity with the disease Ananthavata which is Sannipathika in nature. The name itself indicates the extremely vitiated vata dosha. The management is done with the use of Cannabis tincture for pain. This article describes a case report of 49 years old lady presented with trigeminal neuralgia. In present study, it is observed that Ayurvedic management has provided significant relief in symptoms and found reduced recurrence. The post effective pain relief was found with use of Cannabis tincture.

Keywords: Cannabis, trigeminal neuralgia, suicide disease, Anantha vata

Introduction
Trigeminal neuralgia (TN), also known as tic doloureux, is a condition that affects around 4 to 10 individuals per 100,000 people. It is considered to be the most psychologically painful type of pain. Living with TN can have a significant negative impact on a person’s quality of life, resulting in problems such as seclusion, weight loss and depression. TN is caused by neurovascular conflict which is compression of the trigeminal nerve or an underlying condition that affects this nerve, Pain usually starts from retro-auricular region and spreads towards orbit, ear or to the chin. In infra-orbital neuralgia pain starts below the orbit and spreads towards nose, upper lip, or to the cheek. Classical TN is caused by neurovascular conflict and is divided into type 1 and 2. Type 1 is purely paroxysmal and the patient is has no pain in between attacks and type 2 presents with persistent simultaneous, background facial pain between attacks. Type 2 is also known as atypical TN and in this type central sensitization may be responsible for the persistent pain. Neurovascular conflict may not be evident in type 2, and is found to be resistant to several treatment modalities.

Classical TN is characterized by very severe, sudden, severe excruciating, shock-like pain paroxysms usually on one side of the face at the second and/or third trigeminal branch region.

As per Ayurvedic literature, all conditions which can cause pain over the head are included in Siroroga. Acharya Sushruta explained 11 Sirorogas and Ananthavata is one among them. The symptoms and pathogenesis of Ananthavata explained by the Acharya has close proximity with trigeminal neuralgia (TN). Role of Ayurveda in curing some of these diseases are appreciable since it also compels the patient to avoid Nidana and to follow Pathya Ahara and Vihara. With the recent advancement in medical science there are evidences that suggest, cannabinoids (Cannabis Tincture) does prove useful in pain modulation by inhibiting neuronal transmission in pain pathways. Considering the pronounced antinociceptive effects produced by cannabinoids (Cannabis Tincture), they may be a promising therapeutic approach for the clinical management of trigeminal neuralgia.
Aims and Objectives: To access the Ayurvedic Management of Trigeminal Neuralgia through Cannabis w.r.t to Anantha Vata.

Materials and Methods: A case report of 49 years old lady presented with trigeminal neuralgia selected from ‘Cannabisdoctors’ online telephonic consultation Platform, medical advice for T.N. was prescribed and observation was noted as per the patient diary notes.

Literature Review: Trigeminal nerve is a paired mixed cranial nerve which has three main branches; ophthalmic, maxillary and mandibular branch. Trigeminal neuralgia is one of the most painful conditions affecting this nerve. One, two or all the branches may be affected. Mostly middle and the lower branches are involved. The ophthalmic division alone is involved in less than 5 % of cases. Usually occurring unilateral, only 10-12% cases have bilateral involvement. The pain is felt in the areas where these branches are supplied i.e. ear, eye, lips, nose, forehead, teeth, cheeks etc. The pain is characterized by episodes of intense pain lasts for seconds to minutes. The triggers of pain attacks includes chewing, talking, drinking, touching, blowing the nose, shaving, brushing, wind exposure etc. The single attack generally lasts from less than a second to a few seconds, but it may present in clusters of variable intensity with up to 2 minutes duration.

Severity of pain is correlated with reduced measures of daily functioning, quality of life, well-being, sleep and overall health status. Evidence has been mounting that in a large proportion of cases, compression of the trigeminal nerve at or near the dorsal root by a blood vessel is a major causative or contributing factor. The management of trigeminal neuralgia includes anticonvulsants, tricyclic antidepressants drugs. If medical management fails rhizotomy (nerve fibers are damaged to block pain), balloon compression, glycerol injection, radiofrequency ablation, micro vascular decompression etc are selected based on condition of the patient.

Hand on Hand comparison of symptoms of trigeminal neuralgia can be correlated with Ananthavata. It is a disease in which tridoshas vitiate the manya or greevapardsa and produces severe intolerable pain at the back of neck, in the eye ball, frontal region, root of nose and in temporal region, which in turn causes hanugraha, netrarogas and gandaparsvakkampa. So it is clear that there is involvement of three branches of trigeminal nerve here. Some Aacharyas not mentioned this disease in Shiroragas for having similarity with Anayatovata explained in Sarvagatanetarogas. Anayatovata is a Vata pradhana disease in which eye problems are the main features. Vatahara and netrabrimhana chikitsa should be done there. Thus ophthalmic branch of trigeminal nerve is involved there. Treatment of Ananthavata is explained similar as that of Suryavarthha. Food processed with large quantity of milk and ghee is also included. As similar in Ananthavata, Ahara which is Vatapitam samana is mentioned.

Case Study: An 49 years old lady with no co morbidities presented with H/O left side facial pain since last 11 years.

Chief Complaints and Associated Symptoms: The pain was twitching in nature; over right temporal, frontal, cheeks, lower lid, jaw region. The episodes of pain aggravates on exposure to cold, wind, on physical as well as mental exertion. The pain aggravated on chewing brushing teeth and blowing of air. No facial deviation/ hearing abnormalities are noted.

History of Present Illness: The patient suffered these symptoms for last 9 years. MRI showed vascular loop of left SCA around left trigeminal nerve at REZ. So she underwent an surgical procedure under general anesthesia with intra and post operative period uneventful. Surgery was done of left retro sigmoid sub-occipital craniotomy and micro vascular decompression of left trigeminal nerve on 28/11/2017. No complications encountered, so exited the patient with modern medication. No episodes of pain were noted for next 2 years. But at the end of 2019 a single episode of pain which lasted 10 minutes was noted.

General Examination: patient is conscious oriented and alert.

Weight – 65 kg
Height – 162 cm
Heart rate – 83/min
B.P. – 110/70 mmHg

Personal History
Diet – mixed
Appetite – good
Bowel – regular
Micturition – normal
Sleep – very disturbed

Family History: No relevant family history

Diagnosis: Ananthavata (Left Trigeminal neuralgia)

Line of Management
1. 1 drop of whole leave extract in a cup of warm water, OD every evening after food.
2. 3 drop of whole leave extract in a cup of warm water during an episode of pain (when required)
3. Gandush/ Kawal with Luke warm water with sandhav lawan 4 times a day
4. Avippatkar chsoorn 3gms twice a day before food.
5. The patient was instructed to avoid Ratri-jagarana, cold exposure, cold intake, Vatavardhak aahara.

Observation & Result
The patient got total relief from the symptom of pain after the treatment. The effect of treatment maintained throughout the treatment time. The follow up was taken after 1 months which showed that patient was free from the symptoms. Patient had minimum episode like one for few days then come to no pain rest of the treatment. Symptoms graded with VAS scale from 0 - 10.

Table 1: Showing the results

| Symptoms                  | BT | AT (first week) | AT (third week) | AT (After a month) |
|---------------------------|----|-----------------|-----------------|--------------------|
| Pain intensity over face, temple, forehead | 10 | 6               | 4               | 2                 |
| Restricted jaw opening    | 8  | 2               | 1               | 0                 |
| Pain over eyes            | 4  | 2               | 0               | 0                 |
| Episodes of pain (per day)| 10 | 3               | 1               | 0                 |
Discussion
As per Ayurveda classics Ananthavata is Vata pradhana sannipathika. Hence in Ananthavata, most of the symptoms support the involvement of vata. Increased Sheetha guna of Vata causes pain, Chala guna of Vata is deranged. Cannabis have the ushna veerya hence counterpart sheet guna of Vata, also the overall effects of tridoshas is balancing of Vata and Kapha Dosha hence it reduces the pain in TN patient. Also in more scientific view cannabis have two main chemical components which are tetrahydrocannabinol (THC) and Cannabidiol (CBD). CBD displays it’s nervine tonic and nervine sedative qualities, and it is a viable treatment option in cases of Vata vitiation and/or derangement, sourcing it’s unique ability to induce relaxation and prompt a para-sympathetic response in the body and pain reduction. Ayurveda always seeks to determine the root cause of suffering, be it an external factor due to Vikruti or an in-born factor attributed to Prakruti and in so can treat not only the symptoms but alleviate the original source of imbalance. Tetrahydrocannabinol (THC), is the chemical constituent responsible for the psychoactive response within the mind and body. As THC attaches to these sites and activates them, it creates a cascade affect of relaxation and nerve sedation. THC is also responsible for creating a dopamine response in brain cells, giving the consumer a sense of euphoria and ease as it reduces the pain. Though a general view of Cannabis would be that it has the qualities of hot, dry and mobile, when it reduces the pain. Though a general view of Cannabis we observe the difference in medicinal affect of THC vs CBD, we can see that Cannabis strains that are CBD dominant or enriched exhibit the qualities we would be seeking to treat Vata-type.

Conclusion
Ayurvedic management through cannabis whole leaf extract has proved that it has a significant role, in reducing the symptoms of Trigeminal neuralgia as well as preventing the recurrence and complications.

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Ethics approval and consent to participate: Informed consent has been obtained and this report was processed according to the principles expressed in the Declaration of Helsinki.

References
1. Syamal Kumar De. Fundamentals of Ear, Nose, Throat and Head- neck surgery. 9th ed. The new central book agency (P) Ltd, London, 376p.
2. Madhavakara. Madhavanidana with madhukosavaykhyana. Sri Yadunandanopadhyaya. Siroorganidananam. Chaukhamba Sura Bharati Prakashana, Varanasi, 392p.
3. Susrutha. Susrutha Samhita, Nibandhasangraha. Symptoms Commentary of Sri Dalhanacharya and Nyayachandrika Panjika of Sri Gayadasacharya Utharatantra Chapter 25/1. Edited by Yadavji Trikamji Acharya. Reprint ed. Varanasi Chaukhamba Surabharati Prakashan, 654p.
4. Lange. Current Diagnosis & Treatment in Otolaryngology- Head & Neck Surgery. edited by Anil. K. Lalwani 3rd ed. McGraw Hill Companies, 38p.
5. Susrutha. Susrutha Samhita with Nibandhasangraha Commentary of Sri Dalhanacharya and Nyayachandrika Panjika of Sri Gayadasacharya Utharatantra Chapter 25/14. Edited by Yadavji Trikamji Acharya. Reprint ed. Varanasi Chaukhamba Surabharati Prakashan, 655p.
6. Susrutha. Susrutha Samhita with Nibandhasangraha Commentary of Sri Dalhanacharya and Nyayachandrika Panjika of Sri Gayadasacharya edited by Yadavji TrikamjiAcharya Utharatantra Chapter 6/27. Reprint ed. Varanasi Chaukhamba Surabharati Prakashan, 605p.
7. Susrutha. Susrutha Samhita with Nibandhasangraha Commentary of Sri Dalhanacharya and Nyayachandrika Panjika of Sri Gayadasacharya edited by Yadavji Trikamji Acharya Utharatantra Chapter 26/37. Reprint ed. Varanasi Chaukhamba Surabharati Prakashan, 658p.
8. Vagbata. Ashtangahrdayam with Sarvangasundhara Commentary of Arunadatta. Edited by Harisadasiva Sasthri. Chikitsasthana Chapter 14/34. Chaukamba Sansknt Santhan Varanasi reprinted 2009, 687p.
9. Vagbata. Ashtangahrdayam with Sarvangasundhara Commentary of Arunadatta Chikitsa sthana Chapter 3/ 6. Edited by Harisadasiva Sasthri. Chaukamba Sansknt Santhan Varanasi reprinted, 2009, 585p.
10. Vagbata. Ashtangahrdayam with Sarvangasundhara Commentary of Arunadatta Uthara sthana Chapter 24/5. edited by Harisadasiva Sasthri. Chaukamba Sansknt Santhan Varanasi reprinted, 2009, 861p.
11. Sahasrayogam/Chikitsasarasarvaswam. Sujanapriya vyakhyanam. 34th ed.Vidyarambam publishers Alapuzha, 299p.
12. Sahasrayogam Chikitsasarasarvaswam. Sujanapriya vyakhyanam. 34th ed.Vidyarambam publishers Alapuzha; 286p
13. https://portal.ct.gov/-/media/DCP/drug_control/MMP/pdf/TrigeminalNeuralgiaRedactedpdf.pdf
14. https://www.ayurvedacollege.com/wp-content/uploads/2017/06/An-Ayurvedic-Approach-By-Danielle-Bertoia.pdf
15. https://www.easyyayurveda.com/2014/12/17/bhang-marijuana-benefits-dose-research-side-effects/