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**Case Report** 

## AYURVEDIC MANAGEMENT OF TRIGEMINAL NEURALGIA: A CASE REPORT

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#### ABSTRACT

Trigeminal Neuralgia (TN) is a unilateral disorder characterized by brief electric shock-like pains, abrupt in onset and termination, limited to the distribution of one or more divisions of the trigeminal nerve. The present article deals with a case of TN resistant to pharmacotherapy and came for Ayurvedic treatment to avoid surgery. The Ayurvedic diagnosis of Ardhavabhedaka was made and two assessments were taken before treatment and at the time of discharge on MPQ (McGill Pain Questionnaire). Ayurvedic treatments like nasya karma, ksheera dhooma, ghrita pana, lepa and karna poorana were found to be useful in the management of acute pain episodes of trigeminal neuralgia; but they have not provided sustained pain relief. Karna poorana seems to be beneficial in the acute management of the pain episodes in trigeminal neuralgia. Without doing virechana and vasti like shodhana procedures, it is a big challenge to provide sustained pain relief in trigeminal neuralgia.

Key Words: Trigeminal neuralgia, Ayurveda, Nasya, Karna poorana, McGill Pain Questionnaire, Ardhavabhedaka

## INTRODUCTION

Trigeminal Neuralgia (TN) is a unilateral disorder characterized by brief electric shock-like pains which are abrupt in onset and termination, limited to the distribution of one or more divisions of the trigeminal nerve.<sup>1</sup> The attacks are initiated by non-painful physical stimulation of specific areas (trigger points or zones) that are located ipsilateral to the pain. After each episode of pain there is usually a refractive period, during which stimulation of the trigger zone will not induce the pain.<sup>2</sup> Chewing, speaking, washing the face, toothbrushing, cold winds, or touching a specific 'trigger spot' e.g., upper lip or gum, may all precipitate an attack of pain. TN more commonly affects females and patients over 50 years of age. The pain rarely occurs bilaterally and never simultaneously on each side; occasionally more than one division is involved.<sup>3</sup>

Unfortunately, there is no clarity regarding the Ayurvedic concept or guidelines regarding the diagnosis as well as the management of TN. There is scarcity of studies on TN with Ayurvedic management. This creates a major confusion while approaching a case of TN in Ayurvedic clinical practice. Here we are reporting a case of trigeminal neuralgia diagnosed as 'Ardhavabhedaka' <sup>4</sup> according to Ayurveda. Written informed consent was obtained from the patient for the publication of this case report.

## CASE DESCRIPTION

A 55 years aged male patient came to our care (13.05.2015), with the complaints of severe, brief, electric shock like pains at left half of the face, which aggravates by chewing, face wash with cold water, cold winds, speaking, during early morning hours, after sunset and with any type of movements. Patient also had depressed mood, hopelessness, helplessness and disturbed sleep. Onset of pain was acute with gradual worsening and episodic in nature without nausea and vomiting since last two years (since 2013). Patient was a diagnosed case of 'Trigeminal Neuralgia (TN)' and took allopathic treatment (carbamazepine) but didn't get sustained relief in pain. Patient got an advice for surgery as he was not getting relief with internal modern medication but patient doesn't want to undergo

surgical intervention. Patient has opted Ayurvedic treatment as a last strategy to avoid surgery and came to our care.

Patient has undergone radical resection of rectum and urinary bladder for the management of rectal carcinoma seven years before (2008) and till now he has been irrigation bowels manually. MRI (Magnetic Resonance Imaging) scan of brain revealed, compression of trigeminal root by vascular loop on left side. No positive family history was found. All vital parameters were within normal limits. Patient was non-smoker, non-alcoholic and not having allergy to any drug or food item.

### Diagnosis, Assessment & Treatment

The patient was diagnosed as having 'Trigeminal neuralgia' (13.1.1 – Classical trigeminal neuralgia – G50.00), based on the diagnostic criteria of ICHD-II (The International Classification of Headache Disorders,  $2^{nd}$  edition) by the IHS (The International Headache Society).<sup>5</sup> To assess the efficacy of therapy patient was initially assessed on McGill Pain Questionnaire (MPQ) was used. The McGill Pain Questionnaire is an assessment and evaluation instrument used to evaluate a person experiencing significant pain. It can be used to monitor the pain over time and to determine the effectiveness of any treatment. The minimum pain score is '0' (would not be seen in a person with true pain) and maximum score is '78'. The higher the pain scores the greater the pain.<sup>6</sup> Total two assessments were carried out before starting treatment (13.05.2015) and at the time of termination of treatment (19.06.2015).

Patient was diagnosed as 'Ardhavabhedaka' according to Ayurveda. Patient had all the signs and symptoms of Ardhavabhedaka as explained in Susruta samhita.<sup>4</sup> Conditions like, 'Vataja shirashoola'<sup>7</sup> and 'Ananta vata'<sup>8</sup> were excluded during differential diagnosis. Initially, snehana, swedana procedures (massage and steam) on face followed by nasyakarma, dhoomapana, taila gandoosha were done. Karna poorana has been used whenever the pain gets aggravated. Patient got discharged on 19.06.2015 and no internal medicines were prescribed at the time of discharge (Table 1). Patient came to follow up on 06.05.2015.

## DISCUSSION

Ayurvedic classical texts have described 11 types of shiro roga's (headaches).<sup>9</sup> In present case there was big confusion regarding Ayurvedic differential diagnosis in between, Ananta vata, Ardhavabhedaka and Vataja shirashoola. In 'Ananta vata', there will be intense pain at manya (carotid artery region), nape of the neck, twitching near cheeks, lock jaw and pathology of eyes. All three dosha's are involved in the pathology of Ananta vata'.<sup>8</sup> In 'Vataha shirashoola', there will be severe pain at forehead, giddiness, stiffness at shoulders and neck.<sup>7</sup> In present case, all the lakshana's (signs& symptoms) explained for Ananta vata and Vataja shirashoola were not found. So, both of these conditions were excluded while differential diagnosis.

Either Vata dosha alone or vata along with kapha when gets aggravated, seizes half of the head and cause severe pain like cutting and churning in half of the head, neck, eye brow, temple, ear, eye or forehead. The pain is very intense and agonizing.<sup>10</sup> It has been elucidated by Vagbhata, that this type of headache develops either at the intervals of fortnight or a month and subsides of its own accord.<sup>11</sup> Acharya Sushrutha mentioned it as a tridoshaja disease.<sup>4</sup> Acharya Vagbhata opines it is due to the vitiation of vata alone. According to Acharya Vagbhata, the line of treatment of Ardhavabhedaka must be done same as the treatment of vataja shirashula.<sup>12</sup> As in the present case, there was severe, brief, electric shock like pains at left half of the face with sudden onset and unknown exacerbations and remissions, the diagnosis of 'Ardhavabhedaka' was made and planned treatment accordingly (Table 1).

Before starting Ayurvedic treatment, patient has been taking carbamazepine on regular basis for pain relief and it was gradually tapered. As the patient undergone surgery for carcinoma of rectum with secondary metastasis to urinary bladder, both the rectum and urinary bladder got removed. Due to this, procedures like, virechana and vasti were not possible in the present case and internal medicines along with external panchakarma procedures are the only available options to manage the severe TN pain.

For acute pain management, abhyantara sneha pana (internal administration of ghee or oil) with vidaryadi ghtira and kalyanaka ghrita, nasya karma with ksheerabala 101 avarti, gandusha and karna poorana with bala tailam were started. Patient got relief by these procedures initially and reported decrease in frequency and intensity of pain. But this relief in pain doesn't persisted, gradually patient complained severe, electric shock like pains especially aggravating at early morning hours and at nights. During the acute pain attacks, karna poorana was administered and patient gets immediate relief from pain for some period of time. Sustained pain relief was not attained and patient wants to get rid of pain completely without recurrences. After administering the above treatment for eighteen days, slight modifications were done in treatment. Karna poorana with vacha lashunadi tailam, steam on face with halin capsules, application of the paste of marma gulika at the site of pain and internal administration of varanadi ghrita were started. (Table 1) Even though patient got immediate pain relief by the treatment procedures and medicines, the relief was not sustained and recurrence of pain with severity got increased. Finally patient took a decision to undergo the procedure 'Radio Frequency Ablation (RFA)' for pain relief and stopped Ayurvedic treatment.

Before starting treatment, on initial assessment, total score on MPQ was '53' and it indicates that, patient has been suffering with severe trigeminal neuralgia pain. At the time of termination of treatment (19.06.2015) the MPQ score got increased from '53' to '58'. It shows that patient got no relief on McGill pain questionnaire with treatment. Patient described his pain on MPQ by the following words, 'shooting', 'pulling', 'scalding', 'aching', 'unbearable', 'penetrating', 'drawing', 'torturing, and he identified, 'eating', 'cold', 'dampness', 'weather changes', 'pressure' and 'sleep / rest' decreases the pain.

Trigeminal neuralgia is a chronic pain disorder which has a serious impact on the quality of life of patients. Medical management with carbamazepine remains the treatment of choice. Surgical options are at present considered only when pharmacotherapy fails. At present there is no standardized protocol available to determine the optimal timing for a surgical intervention in a patient. Inability to conduct adequate controlled trials to test new drugs or compare the available treatment options is the problem which plagues research in TN. As a consequence the point at which the patient should be offered different treatment options is not clear.<sup>1</sup>

The indicated procedures like virechana and vasti in the management of shirashoola could not possible in present case (as patient undergone radical resection of rectum and urinary bladder); withdrawing carbamazepine, higher severity of pain, longer duration and severe associated depression may be the probable reasons for negative outcome in the present case. Still procedure like karna poorana seems promising in the acute management of pain in TN.

Panchakarma intervention		
13.05.2015 to	1. Nasya karma (Marsha nasya) with Ksheerabala – 101 avarthi	
30.05.2015	2. Gandoosha with Bala tailam	
	3. Karna poorana with Bala tailam	
01.06.2015 to	1. Facial steam with Halin capsules	
14.06.2015	2. Karna poorana with Bala tailam	
15.06.2015 to	1. Facial steam with Halin capsules	
19.06.2015	2. Karna poorana with Vacha lashunadi tailam	
	3. Local application of Marma gutika (at the site of pain)	
Internal medicines		
13.05.2015 to	1. Vidaryadi ghritam – 10 ml + Kalyanaka ghritam – 10 ml (twice a day, on empty stomach, with hot water)	
14.06.2015	2. Ashtavarga kashayam – 60 ml (twice a day, before food)	
	3. Rasa sindhoora – 60 mg + Ashwagandha (Withania somnifera Linn) choornam – 2 gm + Pippalimoola choornam – 1	
	gm + Chopchini choornam (Smilax china) – 500 mg (twice a day, after food with water)	
15.06.2015 to	1. Varanadi ghritam – 20 ml (twice a day, on empty stomach, with hot water)	
19.06.2015	2. Shirashooladri vajra ras – 250 mg (twice a day, after food with water)	

#### **Table 1: Intervention**

#### CONCLUSION

Ayurvedic panchakarma treatments like nasya karma, ksheera dhooma, ghrita pana, lepa and karna poorana found to be useful in the management of acute pain episodes of trigeminal neuralgia; but they have not provided sustained pain relief. Karna poorana seems to be beneficial in the acute management of the pain episodes of trigeminal neuralgia. Without doing shodhana (purificatory) procedures like, virechana and vasti, it is a big challenge to provide sustained pain relief in trigeminal neuralgia patients with internal medicines alone as in the present case.

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