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Pain Management through *Shiroabhyanga* and *Pratimarsha Nasya* in *Vataja Shirahshoola* (Chronic Tension-Type Headache): A Case Report

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ABSTRACT:

Vataja Shirahshoola, a condition described in Ayurvedic texts, closely resembles tension-type headache in modern medicine. It is primarily caused by vitiation of *Vata dosha* due to factors such as stress, irregular lifestyle and excessive mental strain. A 24-year-old male patient presented with symptoms of bitemporal headache, occipital pain, ocular pain with a sensation of eyeball protrusion and neck stiffness, persisting for 8 months, alongside a stressful condition and was diagnosed with *Vataja Shirahshoola* based on classical symptoms and ICHD-3 criteria. The patient underwent *Shiroabhyanga* (head massage) once in morning and *Pratimarsha Nasya* (nasal administration) with *Tila Taila* (sesame oil) twice daily for 45 consecutive days, without any concurrent oral medication. The patient's progress was assessed every 15th day using a validated *Vataja Shirahshoola* assessment scale and Visual Analog Scale (VAS). Stress was evaluated using the Hamilton Anxiety Rating Scale and Galvanic Skin Resistance Test. Follow-up assessments were conducted after 15 days to comprehensively evaluate the patient's symptom response. After 45 days of treatment, the patient experienced substantial improvement in bitemporal headache, occipital pain and marked reduction in neck stiffness. Stress level was reduced from moderate to mild was observed. No recurrence of symptoms was reported during the follow-up period. This case study demonstrates the effect of *Shiroabhyanga* and *Pratimarsha Nasya* with *Tila Taila* in managing *Vataja Shirahshoola*.

KEYWORDS: *Pratimarsha Nasya*, *Shiroabhyanga,* Tension Headache, *Vataja Shirahshoola*

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INTRODUCTION:

In today's highly competitive life, everyone is constantly engaged in work to earn more money and to prove themselves better than others, however, this excessive workload, combined with growing stress and a lack of proper self-care, often leads to health problems such as headaches especially tension headaches, which closely correlate with *Vataja Shirahshoola* as described in *Ayurveda*. Chronic tension-type headache (*Vataja Shirahshoola*) is a primary headache disorder characterized by a bilateral, pressing or tightening (non-pulsating) pain of mild to moderate intensity, occurring on 15 or more days per month for more than 3 months. Unlike migraine, CTTH is not associated with nausea or vomiting, although either photophobia or phonophobia may be present, but not both.[1] The headache is commonly described as a band-like or vice-like sensation around the head and is not aggravated by routine physical activity, such as walking or climbing stairs. The underlying pathophysiology is believed to involve central sensitization and impaired pain modulation, often triggered or perpetuated by psychological stress, sustained muscle contraction, poor posture, sleep disturbances and emotional disorders such as anxiety or depression.[2] Chronic tension-type headache (CTTH) is often persistent and can lead to considerable impairment in daily functioning and quality of life. Conventional management often provides symptomatic relief but may not address underlying psychosomatic factors.

In *Ayurveda*, Tension type headache is described under *Vataja Shirahshoola* presenting symptoms such as bitemporal pain, occipital discomfort, neck stiffness, protruding ocular pain and aggravation due to mental strain (*Atichintana*). Etiological factors like *Vishamashana*, dominance of *Katu Rasa*, disturbed sleep and excessive mental stress contribute to *Vata* vitiation.[3]

Ayurveda, the ancient Indian medical system, emphasizes holistic health through *Dinacharya*, a daily regimen that incorporates preventive and therapeutic practices to maintain overall well-being. *Dinacharya* in *Ayurveda* promotes physical, mental and spiritual well-being by harmonizing daily habits with natural biological rhythms. Within this regimen, *Shiroabhyanga* (head massage) [4] and *Pratimarsha Nasya* [5] are emphasized for their role in balancing *Vata dosha*. Both are prime therapies indicated for *Urdhvajatrugata Vikaras* and *Vata*-dominant disorders. This case study proves the efficacy of *Shiroabhyanga* and *Pratimarsha Nasya* in managing *Vataja Shirahshoola* correlating with Chronic tension-type headache.

CASE REPORT:

A 24-year-old male patient visited to the OPD of Swasthavritta, ITRA, Jamnagar on 1st August 2025, with complaints of recurrent headache. He reported bitemporal headache associated with pain in the occipital region, neck stiffness and protruding ocular pain along with excessive mental strain since 5 months. The headache had a sudden onset and was described as sharp and

continuous in nature, without any radiation. The episodes occurred more than three times per week, commonly during the morning, afternoon and evening hours and each episode persisted for up to three hours irrespective of food or fasting. The severity of symptoms was aggravated by prolonged study hours and increased mental stress.

Personal history

The patient had a mixed dietary pattern with a predominance of *Katu rasa* and irregular eating habits (*Vishamashana*). His appetite was irregular and bowel habits were altered, with constipation being predominant and bowel evacuation occurring once daily in an unsatisfactory manner. He reported a sound sleep of 6–7 hours per night and had a habit of consuming tea three times daily.

Physical examination

His height was 158 cm, weight 65 kg and body mass index (BMI) was calculated as 26.03 kg/m^2. His pulse rate was 82 beats per minute and respiratory rate was 20 breaths per minute. General examination revealed absence of pallor, icterus, cyanosis, clubbing and edema. The skin was observed to be dry and dull, the tongue was coated. On mental status examination, features of *Chinta* (anxiety) were noted. Ayurvedic assessment revealed *Vata-Kapha* as the *Sharirika Prakriti* and *Rajas-Tamasa* as the *Manasika Prakriti*.

Diagnosis:

Diagnosis of the patient was done based on the presence of classical symptoms of *Vataja Shirahshoola*[6] such as, *Shankhanistoda* (bitemporal headache), *Ghatasambheda* (piercing pain in nape of neck) must be present in all patients with or without having associated symptoms such as, *Bhrumadhya Evum Lalatatapanam* (pain and burning in frontal region), *Srotra Nishkasanvat pida* (severe pain in ears), *Akshi Nishkasanvat pida* (pain in eyes as feeling with eyes are coming out), *Shiraha Sandhimokshanavapida* (pain as joint are being laxed), *Shiroghurnanam* (tremors or shaking of head), *Sphuryati Sirajaala* (sensation of pulsating veins during pain) and *Stabyathe shirodhara* (stiffness of neck) and As per International Classification of Headache Diseases-3 criteria.[7]

Investigations:

The following hematological and biochemical investigations were performed before intervention to rule out any pathology and no abnormalities were detected. (Table 1)

Time line of study

The timeline of the patient's outcomes is summarized in Table 2.

Assessment criteria

Assessment was carried out using subjective parameters such as validated questionnaires for the assessment of *Vataja Shirahshoola* and the Visual Analogue Scale (VAS). Stress was assessed using the Hamilton Anxiety Rating Scale and the Galvanic Skin Resistance (GSR) test was considered as

an objective parameter. Assessments were conducted on Day 0 (before treatment), Day 15, Day 30, Day 45 (after treatment) and during follow-up on Day 60.

THERAPEUTIC INTERVENTION:

In this case study, based on the patient's symptoms, *Shiroabhyanga* and *Pratimarsha Nasya* with *Tila Taila* without any oral medication were employed as the treatment modalities. *Pathya Apathya* for *Vataja Shirahshoola* was advised as per CCRAS.[8] After obtaining written informed consent, *Shiroabhyanga* with *Tila Taila* was performed at the morning an empty stomach for 5-10 minutes, followed by *Pratimarsha Nasya* with *Tila Taila*, administered as 2 drops in each nostril. In the evening, only *Pratimarsha Nasya* was self-administered by the patient. The treatment was continued for 45 days, followed by one scheduled follow-up assessment on the 15th day after completion of treatment.

Follow up and outcome

The treatment resulted in progressive relief of symptoms associated with *Vataja Shirahshoola* and provided mild relief from stress. Follow-up assessment conducted after the completion of therapy confirmed that efficacy was sustained, with no recurrence of symptoms. The extent of symptom relief was further validated through statistical analysis, as presented in Table 3.

Table 1: Laboratory Investigations

Investigation	Results	Normal range
Hemoglobin	15.5 g%	14.5-17.5
RBC	5.07	4.5-6.0
Total count	221000 cells/mm^2	150000-450000
DLC	45.3% (N), 38.5% (L), 9.7% (E), 5.9% (M), 0.6% (B)	40-70% (N), 20-40% (L), 1-4% (E), 2-6% (M), 0-01% (B)
ESR	08 mm	0-15
FBS	84 mg/dl	70-110
Urine R & M	Normal	-

Table 2: Time line

Timeline	Event	Symptoms
01-08-25 (Before treatment)	Patient came to Swasthavritta OPD and was diagnosed with *Vataja Shirahshoola*	bi-temporal and occipital headache (episode occurs >3 in a week and persisting till 3 hrs), neck stiffness and protruding pain in eyes.
16-08-25 (Day 15)	*Shiroabhyanga* and *Pratimarsha Nasya* was done daily	Moderate relief in protruding pain in eye. Mild relief in bitemporal and occipital region pain and neck stiffness.
02-09-25 (Day 30)		Mild protruding pain in eye. Moderate relief in bitemporal and occipital region

		pain and neck stiffness.
18-09-25 (After treatment)		no protruding pain in eyes and neck stiffness. Reduced Frequency of headache upto once in a week not more than half hour
02-10-25 (Follow up)	Follow up was done	No recurrence of any symptoms

Table 3: Assessment scale result

Parameters	**BT**	**Day 15**	**Day 30**	**Day 45**	**F/up**	**DIFF**	**% Relief**
Vataja Shirahshoola assessment Scale [9]	24	17	12	06	06	18	75
VAS score	20	15	09	03	03	17	85
HAR scale	20	18	14	10	10	10	50
GSR	215	218	210	201	198	14	7

***HAR scale- Hamilton Anxiety Rating scale**

DISCUSSION:

The results clearly demonstrate a significant therapeutic impact on *Vataja Shirahshoola*. *Vataja Shirahshoola* Assessment Scale showed a marked reduction from 24 to 6, indicating 75% relief in the core symptoms of headache. VAS (Visual Analogue Scale) improved significantly from 20 to 3, reflecting 85% relief in perceived pain intensity. HAR (Hamilton Anxiety Rating Scale) showed anxiety symptoms reduced moderately, from 20 to 10, giving 50% relief. GSR (Galvanic Skin Response) test showed 7% improvement, suggesting minimal changes in physiological stress markers.

Probable mode of action

Shiroabhyanga and *Pratimarsha Nasya* with *Tila Taila* as per classics is an effective measure in *Shiroroga*. *Shiroabhyanga* reduces neuromuscular tension by improving local circulation and relaxing scalp and cervical muscles, which is beneficial in tension-type headaches as it alleviates *Vata*. The tactile stimulation during massage has been shown to activate parasympathetic pathways, lower cortisol levels and reduce stress, thereby reducing headache intensity[10] Nasal pathway, considered as the "gateway to the head" (*Shiraso Dwaram*), delivers oil through the nasal route, which directly influences the olfactory-limbic system. This pathway modulates emotional regulation and increasing stress resilience, helping to stabilize *Prana Vayu* and reduce anxiety-related triggers of tension headache.[11] *Tila Taila* (Sesame oil) itself possesses *Vata-Shamaka* properties due to its *Snigdha* (unctuous), *Sukshma* (minuteness) and *Ushna* (warming) *Guna* (qualities) and modern studies confirm its antioxidant

and anti-inflammatory effects, attributed to lignans and vitamin E, which reduce oxidative stress and neuroinflammation associated with chronic headache.[12] *"Yasya Vivarane Shakti Sa Sukshma"* describes the ability to penetrate minute channels (*Srotas*).[13] This property of *Tila Taila* supports microcirculation, dilates fine pathways, and clears blockages, ensuring nutrients and oxygen reach deeper tissues. *"Yasya Kledane Shakti Sa Snigdha"* refers to the capacity to lubricate and soften tissues.[13] This prevents dryness and rigidity in vessels, maintaining their elasticity and pliability. Together, these qualities help preserve vessel patency, promote smooth blood flow, and enhance circulation by reducing obstruction and improving tissue perfusion.[14] This indicates that while the treatment was highly effective in alleviating headache and associated symptoms, autonomic regulation and hormonal balance were slightly responsive. Collectively, the findings suggest that the intervention provided strong symptomatic relief and improved quality of life (QoL), but adjuvant therapies such as stress management or lifestyle modifications may be necessary to achieve more comprehensive physiological balance. Significant improvement was observed in pain intensity, headache frequency and psychological parameters, with sustained therapeutic results.

Hence, overall *Shiroabhyanga* and *Pratimarsha Nasya* act peripherally by relieving muscle tightness and centrally by modulating stress pathways, offering a holistic mechanism for the management of tension-type headaches.

CONCLUSION:

This case study suggests that the combined therapy of *Shiroabhyanga* and *Pratimarsha Nasya* using *Tila Taila* is an effective and safe intervention for the management of *Vataja Shirahshoola* (Chronic tension-type headache) as part of *Dinacharya*. Larger clinical studies are recommended to validate these findings.

Declaration of Patient consent:

The informed written consent has been taken from patient for publication of data and images without disclosing the identity of patient.

Limitation of study: Longer study duration with follow-up and larger populations are needed to confirm sustained effects.

Conflict of interest: The author declares that there is no conflict of interest.

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