

CLINICAL STUDY TO EVALUATE THE EFFECT OF TAILADHARA IN THE MANAGEMENT OF VATIKA SHIRASHOOLA W.S.R. TO CHRONIC DAILY HEADACHE

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ABSTRACT

The present clinical study was conducted to evaluate the effect of *Shirodhara* in the management of *Vatika Shirashoola* w.s.r. to Chronic Daily Headache. Twenty patients were randomly selected for the study out of which eighteen completed the study. Patients were subjected to *Shirodhara* with *Murchit Til Taila* for fourteen days. The effect of therapy was assessed on the basis of relief found in chief complaints. Specialized rating scales were also adopted to evaluate the effect of therapy. Response of the clinical trial was found highly significant statistically. No adverse effects were noted in any of the subjects during the trial and in the follow up as well. The study revealed that *Shirodhara* therapy plays a vital role in the management of *Shirashoola*.

Keywords: Chronic Daily Headache, *Tailadhara*, *Vatika Shirashoola*, *Shirodhara*

INTRODUCTION

Diseases are the destroyers of health and manifest themselves as a hindrance in leading a happy and healthy life. Day to day stress at work and home, irregular food habits, suppression of natural urges, lack of proper sleep and less time for relaxation being part of our life, enhance the incidences of many diseases, mainly the diseases having psychosomatic origin. Chronic daily headache (CDH) is one amongst such disorders. It is a primary headache which occurs daily or almost daily for at least fifteen days a month. Majority of the drugs employed in modern medicine for this

disease are almost limited to suppress the symptoms. Long term use of such drugs is found to cause serious side effects like memory loss, gastrointestinal disorders, weight gain. All the experiences in the past in headache management have gradually revealed that the drug approach of management probably is not the right approach. Therefore there is a wide scope of research to find out the safest remedy or non-pharmacological approach from *Ayurveda* for the management of this disease.

Ayurveda considers *Shira* as one of the three vital organs of the body where the *Prana* resides. *Charaka* has considered *Shira* as *Utta-manga*¹ and compared it with the sun. *Charaka* explains that all the sense organs and the channels carrying the sensory and vital impulses from the *Shira* are like the rays from the sun², if any insult occurs to the vital organ, it soon overtakes the entire body. Hence like other vital centers viz.

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Hridya (heart) and *Vasti* (Urinary Bladder) it must be protected from external injury and internal morbidity of *Vata* and other humors.³

CDH can be compared with *Vatika Shirashoola* described in *Ayurvedic* texts. Its clinical features are *Shankhanistoda* (Bitemporal headache), *Ghatasambheda* (Pain in occipital region), *Bhrumadhya Lalatam taptivivedanam* (Pain and Burning sensation in forehead), *Akshinishka-sanvat Pida* (pain as eyes were to come out), *Shiroghurnanam* (Giddiness), *Shrotrabaadhyta*⁴ (Pain in ears and phonophobia).

Acharya Vagbhata described four types of *Murdha Tailam*⁵, which includes *Abhyanga*, *Seka*, *Pichhu* and *Basti*. *Seka* here means *Shiro-Parisheka*, which is also known as *shirodhara*. It has been indicated in the local diseases of the skull like *Arunshika*, *Shirahtoda*, *Daha*, *Paka* and *Vrana*. The perusal of the *Ayurvedic* text reveals that it has also been indicated in *Shirashoola*⁶, *Shankhaka*⁷, *Suryavarta*⁸. Considering all such things the present study was selected.

Aims and Objectives of the study

- ❖ To evaluate the effect of *Tailadhara* in the management of *Vatika Shirashoola*.
- ❖ To assess the probable mode of action of *Shirodhara* (procedural effect as well as drug effect)

Materials and Methods

- **Selection of subject:** Twenty patients were randomly selected irrespective of their age, sex and religion from OPD and IPD of *Shalakyata Tantra Vibhaga* of the institution.

Inclusion criterion:

- ❖ Daily or almost daily chronic headache presenting with painful exacerbations of migrainous type.
- ❖ Average headache frequency >15days/month (>3days /week) for more than 6 months duration.
- ❖ Overuse of analgesics or other symptomatic or prophylactic drugs.
- ❖ History of intermittent headache which had evolved into the current daily head pain.
- ❖ Patients having mixed features of migrainous type or chronic tension type headache.
- ❖ Age group (20- 60 yrs).
- ❖ Willingness to be treated with an *Ayurvedic* regimen.

Exclusion criterion:

- ❖ Secondary headaches arising due to any other pathological conditions.
- ❖ Headaches arising due to meningitis, encephalitis, hypertension, sinusitis, psychosis, neurological disorders etc.
- ❖ The patients having a positive history of head Injury.
- ❖ The patients already being diagnosed or suspected of ICP.
- ❖ Hypoglycemic patients were also excluded.
- ❖ Pathological conditions occurring in Eye, ENT and Dental.

Laboratory Analysis:

Following laboratory investigations were done on all the patients before starting the trial to rule out any other illness if present and to exclude them from the trial:

Blood: Hb, TLC, DLC, ESR

Biochemical examination: FBS

Urine: Routine and microscopic examination

Method of Study

- **IEC and Consent:-** Approval from the *Institutional Ethics Committee (IEC)* was taken prior to begin with this study vide No.27/2012 dated 15.05.2012. Written & informed consent of the patients was taken before their registration for the study.
- **Patient information sheet and proforma:-** All the patients were given an information sheet stating all the details of the study protocol, benefits of the trial & any expected side effects. A Clinical Research Proforma was specifically designed to note down all the details of the patients and their disease regarding this study.
- **Preparation and Administration of Drug:-** The drug "*MURCHHIT TIL TAILA*" was selected by virtue of its *vata-kapha-shamaka*⁹ properties. It was meant for local application (*Shirodhara*) in the management of *Vatika Shirashoola*.
- **Method of preparation:-**The drug was manufactured by Charaka Ayurvedic pharmacy, Pa-prola. *Murchhit til taila* was prepared after taking all the raw drugs in the prescribed quantity as told in text books¹⁰.
- **Administration of Drug, Duration and Dosage:** *Shirodhara* was performed with luke-

warm *Murchhit Til Taila* (the temperature of taila was approximately 38^o - 40^o C, which is easily tolerated and cozy to touch) for 30 minutes daily in the morning between 8 am to 10 am for a period of 14 days. After the completion of treatment, all the patients were advised to attend the outdoor patient department within one month for the follow up study.

- **Assessment:** Total two assessments (before and after treatment) were carried out. Assessment was based on relief found in the signs and symptoms of the disease. For this purpose main signs and symptoms were given suitable scores according to their severity. Assessment

of the scores before and after treatment indicates the amount of relief observed.

Other parameters used:

1. Assessment of the Degree of Pain: Visual Analogue Scale (VAS)
2. Psychometric tests: HARS, HDRS

Overall effect of therapy

Overall effect of therapy on eighteen patients (who completed the trial) was calculated by taking the percentage of relief, based on different criteria. The study revealed highly significant results. Marked improvement was observed in 50% cases, moderate improvement in 44.44% cases, and mild improvement in 5.55%.

Observations and Results

Effect of therapy on various Chief complaints (Table-1)

Sr. No.	Chief complaints	Mean		%age	Mean diff	SD	SE	T
		BT	AT					
I	<i>Shankhanistoda</i>	2.61	0.38	85.10	2.23	0.64	0.15	14.57
II	<i>Ghatasambheda</i>	1.77	0.44	75.00	1.33	0.84	0.19	6.73
III	<i>Bhrumadhya lalatam taptivivedanam</i>	2.33	0.50	78.57	1.83	1.09	0.25	7.08
IV	<i>Shrotrabaadhyta</i>	1.05	0.27	73.68	0.78	0.87	0.20	3.75
V	<i>Akshinishkasanvat Pida</i>	1.33	0.27	79.17	1.06	0.99	0.23	4.48
VI	<i>Shiroghurnanam</i>	1.11	0.33	70.00	0.77	0.80	0.19	4.08
VII	Disturbed sleep	1.77	0.22	87.50	1.55	0.78	0.18	8.42
VIII	Heaviness in head	2.16	0.38	82.05	1.78	0.94	0.22	8.00

Effect of therapy on Severity, Frequency and Duration:-Table-2.

Characteristic of Headache	Mean		%age	Mean diff.	SD	SE	T	P
	BT	AT						
Severity	2.66	0.61	77.08	2.05	0.72	0.17	12.02	<0.001
Frequency	3.77	0.66	82.35	3.11	0.75	0.17	17.40	<0.001
Duration	3.50	0.66	80.95	2.84	0.70	0.16	17.00	<0.001

Effect of therapy on H.A.R.S. and H.D.R.S. :-Table-3.

	Mean		%age relief	Mean	SD	SE	T	P
	BT	AT						
H.A.R.S.	1.55	0.44	71.43	1.11	0.96	0.22	4.89	<0.001
H.D.R.S.	0.88	0.33	62.50	0.55	0.70	0.16	3.34	<0.01

Effect of therapy on VAS of Vatika Shirashoola:-Table-4.

Criteria	Mean		%age	Mean	SD	SE	t	P
	BT	AT						
V.A.S.	2.44	0.50	81.82	01.94	0.72	0.17	11.37	<0.001

Overall effect of therapy

Overall Effect of <i>Tailadhara</i>	No. of Patients	% age
Cured	0	0.00
Marked improvement	9	50.00
Moderate improvement	8	44.44
Mild Improvement	1	05.55
Unchanged	0	0

DISCUSSION**Regarding Probable Mode of Action of *Shirodhara*****Procedural effect****Percutaneous absorption of the drug –**

Dhara acts by percutaneous absorption¹¹ of the medicine through the skin into the microcirculation. The therapeutic effect may be due to diffusion of the drug *dravyas* through the fine pores present over forehead in similar way as seen by the procedure like *Abhyanga*, *Snana*, *Udvartana*, *Parisheka* etc.

Application of heat to the forehead skin-

Luke warm water acts as a vehicle to transfer heat to the skin. This local application of heat causes vasodilatation of arterioles¹² and the increased circulation to the concerned part further facilitates more nutrients and oxygen to the part.

Acupressure (Reflexology) –

When a receptor is continuously stimulated with the same strength of stimulus after sometime the receptor stops sending impulses through the afferent nerve. This principle¹³ can be used to block the afferent impulses of pain. In *Dhara* the duration of the therapy is 30 minutes, hence there is prolonged and continuous pressure on the forehead due to trickling of *dhara drava*. This continuous pressure coupled with heat of oil is thought to release body's natural pain killers; the Endorphins. The endorphins produce analgesia by action on the brain stem.

Vibration (Psychological Effect)-

The continuous trickling of *drava* on the forehead sets in vibration in the cranial vault same as is done by pronunciation of the word "Om" in *Hindu mythology*. These vibrations have a positive stimulating effect on the CNS and create a state of relaxation¹⁴. This induces changes in the emotional states of the patients and hence normalizing the neurotransmitters serotonin, adrenaline and nor-adrenaline.

Effect on *marma*-

Sushruta has mentioned '*Sthapani Marma*' between the two eyebrows. It is *Vishlyaghana* type of the *sira marma*. Its *pramana*¹⁵ has been mentioned half finger. *Amarakosha* has named it as *Kurcha Marma*. The *shirashulshamak* effect of *shirodhara* proved by this study seems to be mediated through this *sthanani* or *kurcha marma*. *Taila* poured on this *marma* affects vasodilatation of arterioles leading to relief in pain.

The posture in the procedure of *Shirodhara*-

Posture while doing the therapy also adds on to the benefits of *shirodhara*. Patient is kept lied on *shirodhara* table in supine position which itself is a relaxing posture as seen in *shavasana*¹⁶.

Somatoautonomic Reflex set up by pouring of drug on forehead

The physiologic effect of sesame oil dripped on the forehead induced by somato autonomic reflex through thermo sensors or pressure sensors in the skin or hair follicles via the trigeminal cranial nerve¹⁷.

Drug effect

The drug has *madhura Rasa*, *tikta*, *kashaya Anurasa*, *ushna Veerya* and *madhura Vipaka*¹⁸

Action of *Rasa*-

Due to *snigdha*, *guru guna madhura rasa* balances *ruksha* and *laghu guna* of *vata*. It also has *shadindriyaprasadana* property¹⁹. *Tikta rasa* has *Pittakaphashamaka* effect²⁰. *Kashaya rasa* has *Kaphapittashamaka* effect and pacifies the vitiated *dosha* present in *rakta dhatu*²¹.

Action of *Guna*-

Guru, *Snigdha guna* alleviate *vata dosha* by inhibiting the *laghu* and *ruksha guna* of *vata dosha*.

Action of *Veerya*

Ushna veerya has *Vatashamaka* effect

Action of *Vipaka*

Madhura vipaka has *Vatashamaka* effect

Madhura rasa and *madhura vipaka* nourish and give strength to *rasa* and *rakta dhatu* which are

main *dushya* in the *samprapti* of *Vatika Shirashoola*.

Local Application

Bahya prayoga of *til taila* has *snehana*, *vedanasthapana* and *shirashoolaprashamaka* effect, thus relieves headache by *shirodhara*. Moreover *Til taila* is *chakshushya*, *shiroshoolashamaka* and considered best for *parisheka*, *abhyanga*, *avgaaha* etc procedures.²²

Pharmacological activities

Sesame oil is an Antioxidant, having free radical scavenging activity²³

Murchhit Til Taila has got additional analgesic and anti-inflammatory properties by virtue of *murchhan dravyas*

CONCLUSION

The present study demonstrated that *shirodhara* has a potent effect in alleviating *shirashoola*. *Tailadhara* provided a significant improvement in the signs and symptoms of *Vatika Shirashoola* (CDH) without any oral medication.

On the basis of the observations made in the present study it can be safely predicted that there is a substantial scope of using this *Ayurvedic* treatment modality as a safe and effective remedy for the management of Chronic daily headache.

As the study was done over a small interval of time with small number of patients, so many aspects of the study might have been out of consideration. So, scope of further research in this field is still there.

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