



Case Study

EFFECT OF TILA TAILA SHIRODHARA IN ANIDRA - A CASE SERIES

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ABSTRACT

People with insomnia, commonly referred to as sleeplessness, have problems falling asleep. Around 10% to 30% of individuals experience insomnia at any given moment, and up to 50% of people experience it in the course of a single year. Only 6% of people develop insomnia that lasts longer than a month and is unrelated to any problem. The typical first line of treatment are Sleep hygiene and lifestyle changes but is restricted only to the mild cases, Moderate or severe cases requires medications like sleeping pills, sedatives, antidepressants, antipsychotic drugs like Antihistamines, Benzodiazepines etc. The side effect, dependency and withdrawal symptoms of these drugs are not new to the medical sciences. On the antagonistic part Ayurveda can provide a safe and effective non interventional solution to it by *Shirodhara* a *Panchakarma* therapeutic measure. In this case series *Tila Taila Dhara* was used to see the effect on various criteria like Athens Insomnia Scale Hamilton Anxiety Scale, Hamilton Depression Scale, WHO - Quality of scale (Bref) and *Ayurveda Lakshana* and an overall improvement of 74.9 % was found in all these criteria's which was found worth sharing to the medical fraternity for enhancement and its further appraisal.

INTRODUCTION

The man of 21st century is breathing under various stresses, strains and anxiety. Some people worry because they don't have enough money, happiness, or luxuries, while others worry because they don't have enough mental serenity. Co-ordination between ambitions and capabilities is no more seen. Everyone aspires to advance beyond where they are now in order to achieve the pinnacle of development. The lifestyle is very different from what the human body's inherent anatomy and physiology allow. Irregular and unnatural eating habits, repressing natural cravings, inadequate sleep, and a lack of downtime are inseparable components of our routine that drain the body's energy and eventually result in disease. Through a variety of psycho-physical mechanisms, the stress and strain of daily living can have an impact on a person's organs.

Among the several psychosomatic diseases, insomnia is one of them, which can be compared with *Anidra*. Three components, namely *Ahara*, *Nidra*, and *Brahmacharya*, are crucial to the upkeep of any living thing.

In Ayurvedic literature, these factors i.e., *Ahara* (diet), *Nidra* (sleep) and *Brahmacharya* (celibacy) have been compared with the three legs of sub-support and have been termed as the three *Upastambhas*^[1]. According to the ancient Acharyas, sleep is necessary for both the continuation of life and the termination of it, as well as for happiness and sadness, development and wasting, strength and weakness, virility and impotence, knowledge and ignorance^[2]. There is a close connection between our body and our mind^[3].

Charka explained that the fundamental causes of the vitiation of *Rasavaha Srotas* is a bodily channel that can lead to numerous ailments in humans which are *Chinta* (stress) and *Atichintan* (overthinking). *Chinta* increases *Vata*^[4], the vitiated *Vata* negatively impacts the heart and causes the *Buddhi* and *Smriti* to become unstable.^[5] The natural physiology of a person's body is regulated by the *Tridosha* (functional units of the body), according to Ayurvedic theory; these units can either maintain or

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damage a person's body through equilibrium or disequilibrium^[6]. *Shirodhara* is a special non-invasive Ayurvedic treatment. Its non-invasive method has been demonstrated to be as effective as pharmaceutical drugs in the treatment of sleeplessness, stress, anxiety, headaches, and hypertension.^[7] *Shiro* means head and *Dhara* means dripping. *Shirodhara* is a practise that involves dripping oil or other liquids on the forehead for 36 to 1 hour and 12 minutes.^[8] Based on varied practises in India, classical scriptures do not provide the total number of days for the course of therapy. So, the duration of *Shirodhara* is 3, 7, 14, or 28 days.^[9] Numerous research revealed that *Shirodhara* considerably reduced levels of anxiety condition.^[10] Studies conducted by Japanese researchers demonstrated that the *Shirodhara* treatment dramatically reduced plasma noradrenaline levels.^[11] *Shirodhara* may also be helpful for controlling anxiety disorders and *manasbhava* disturbance.^[12] As *Taila* is considered as best *Vatahara* drug, *Tila taila* was selected as *Shirodhara* drug, as because of its *Madhura Vipak* and *Ushna Veerya* it possesses^[13] *Vatahara* properties. There are various references in the Ayurvedic classics which show the effect of *Tila taila* on *vata dosha*. In *Panchkarma* therapy, *Tila* in the form of oil can be utilised for *Abhyanga Shirodhara Nasya* and *Basti*.

Methodology

It is a randomised clinical trial with a purpose of treating *Anidra* through intervention of *Shirodhara* with three different medicinal forms in a parallel assignment.

Patients coming to O.P.D of All India Institute of Ayurveda, New Delhi, were selected on the basis of inclusion and exclusion criteria. Total 7 patients were taken in the study.

Total Duration of Study: 30 days

RESULT

Following result were found in the study,

Assessment Criteria	1 st Day	7 th Day	14 th Day	21 st Day	30 th Day	% Improvement
Athens Insomnia Scale	18.00	13.57	7.43	3.00	2.29	88.6%
Hamiltons Anxiety Scale	34.43	25.57	17.71	11.86	9.00	73.8 %
Hamiltons depression scale	40.86	26.57	16.43	9.57	7.00	82.6 %
WHO QOL (Physical)	19.86	36.43	51.57	65.71	77.14	74.2%
WHO QOL (Psychological)	26.14	38.29	53.43	63.57	77.14	66.1%
WHO QOL (social Relationship)	27.71	40.86	50.57	64.14	76.71	63.8%
WHO QOL (Environmental)	30.86	44.86	55.57	67.57	80.43	61.6%
<i>Anidra Lakshana</i>	25.14	16.43	9.86	4.86	2.86	88.6%

Intervention Time: 14 days

Follow up: 16 days

Assessments: 1st, 7th, 14th, 21st, 30th day (earlier total of 7 assessments were reduced to 5 assessments due to COVID 19 pandemic).

Statistical Tools: Test was used statistical analysis within the groups and between the groups.

Inclusion Criteria

Patients presenting with complaints of Reduction of sleep time.

Patients fulfilling AIS scoring i.e., ≥ 7 .

Wakefulness during normal sleep.

All of the patients for the duration of 3 months or more.

Patients of either sex in the age group of 20 – 70 years.

Exclusion Criteria

Patient below 20 and above 70 years

Pregnant women and lactating women.

Patient with stroke, hemorrhagic disorders, epilepsy or any other psychotic disorder.

Patient with alcohol dependency or drug addict.

Rashes, cut, abrasion, neck injury on head.

Assessment Criteria

Assessment criteria includes two types of assessment

Primary

Secondary

Primary Criteria Includes

Athens Insomnia Scale

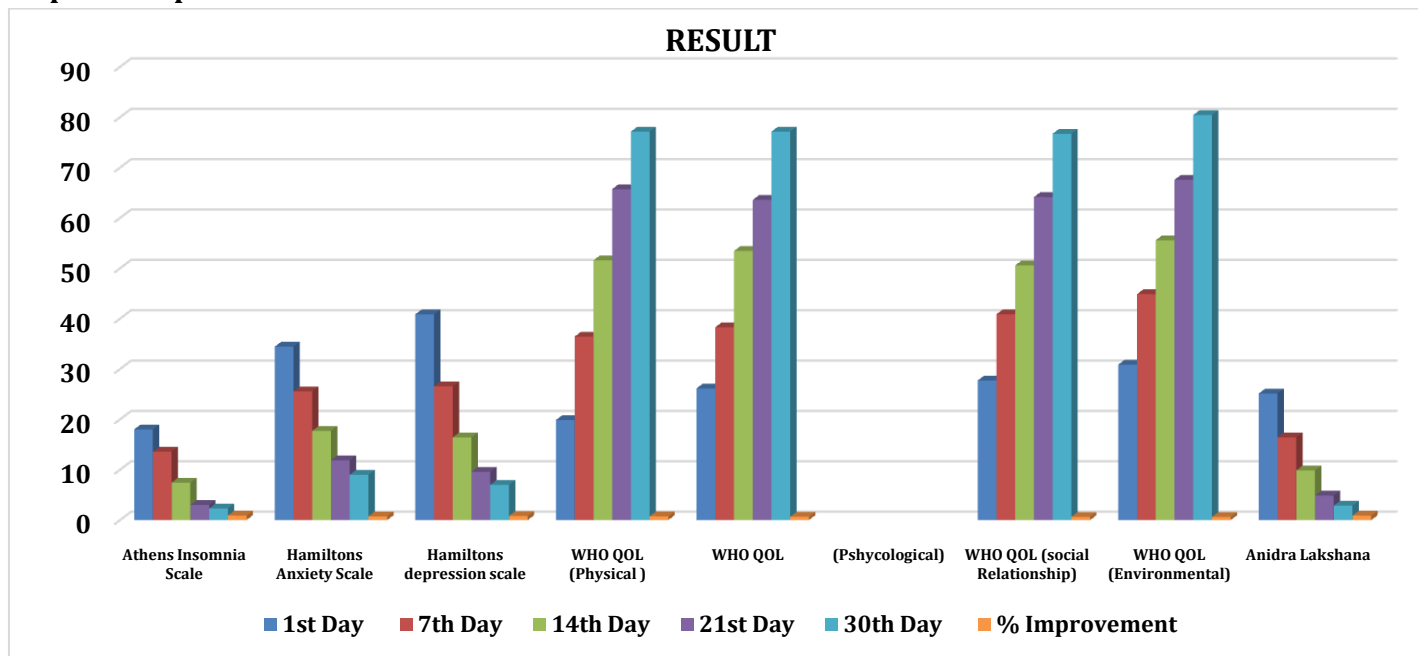
Hamilton Anxiety Scale

Hamilton Depression Scale

WHO – Quality of scale (Bref)

Secondary Criteria includes: *Anidra Lakshanas (Jrumbha, Tandra, Angamarda, Shiroroga, Shirogaurav, Akshigaurav, Jadya, Glani, Bhrama, Apakti, Vataroga).*

Graphical Representation of Result in all Assessment Criteria



Analysis

An overall improvement was seen in the assessment criteria taken into consideration. In Athens, insomnia Scale there was an overall decrease seen from 18 to 2.29 from day 1 to day 30 with a percentage improvement of 88.6%. Likewise, in Hamilton’s Anxiety Scale also a decrease was seen from 34.43 to 9 from day 1 to day 30 with a percentage improvement of 73.8%. Also, in Hamilton’s Depression Scale decrease was seen from 40.86 to 7 from day 1 to day 30 with a percentage improvement of 82.6%. WHO Quality of Life was also observed to have an overall improvement of 74.2%, 66.1%, 63.8%, and 61.6% in physical, psychological, social relationship, environmental aspects respectively. All the *Anidra Lakshana* was seen to decrease significantly with an overall improvement of 88.6%.

DISCUSSION

Insomnia is treated with medications that relax the mind, such as *Medhya, Rasayana, Nidrajanan, Vatshamak,* and *Balya*. The qualities of *Tila Taila* mentioned in ancient Ayurvedic books include *Madhura rasa, Kasaya anurasa, Usna Virya,* and *Madhura Vipaka,* as well as *Usna, Vyavayi, Visada, Suksma, Tikсна, Guru, Vikasi, Lekhana,* and *Sara*.

Action of *Tila taila* mentioned in different text of *Ayurveda- Brihana, Vrishya, Prinana, Medhakara, Sthairya, Varnakara, Tvakprasadana, Balya, Krimighna, Chaksusya, Baddhavinmutra, Yoni Shira Karnashul Hara, Chinna-Bhinna Viddha picchita Vrana, Abhyamaga, Garbhashaya shodhan,* and *Loghutakararak*. Its internal consumption is fantastic for raising iron levels, lowering cholesterol, treating heart conditions, and boosting strength. Sesame oil is beneficial for skin.

Given that it includes vitamin E and is easily absorbed by the skin, it is an antioxidant. This oil is rich in minerals (copper, calcium, zinc, iron). Calcium and zinc are good for bones. Copper gives relief in arthritis, gout. Magnesium supports respiratory and vascular health. While enhancing good cholesterol, it lowers bad cholesterol. Sesame oil works as a purgative. Constipation is cured by it. The presence of alkaloids, saponins, flavonoids, tannins, phenols, and minerals is what causes these positive impacts on health. Terpenoid presence gives antibacterial and anti-diabetic properties. Terpenoid also aid in lowering blood pressure and blood sugar levels. Alkaloids are central nervous system stimulants. Flavonoids and phenols give it antioxidant properties also saponins which are antioxidant, anti-cancer and immunity booster. Oil has tannin, which gives it an antibacterial, antiviral, and astringent effect. Sesame oil also contains minerals viz. zinc, iron, potassium, sodium, copper, lead and manganese. The concentration of iron is highest among the various mineral present in oil^[14]. The therapeutic impact could result from *Tila Taila* diffusing via the tiny pores on the forehead in a manner similar to that observed during *Abhyanga, Snana, Udvartana, Parisheka,* etc. *Tila Taila* have *Tridosha shamaka* and *Brimhana* properties acting on *Indriya, Manas* and *Shirah*. When *Shirodhara* is done through it, it generates a sedative and anti-spasmodic properties, anti-stress, tranquilizer properties. It helps in *Samprapti Vighatana* of disease *Anidra* to correct the vitiated *Sharirika* and *Manasika Doshas* to induce sleep. Regarding *Shirodhara’s* basic principles, it is a cleansing and renewing therapy intended to get rid of toxins, mental tiredness, as well as stress and any

negative effects on the central nervous system. *Shirodhara* therapy is used for alleviation of many ailments and improving sleep quality, which is an important component of mammalian homeostasis, vital for our survival. The hypothalamic-pituitary-adrenal (HPA) axis is inhibited by sleep, but activation of the HPA axis or the use of glucocorticoids can cause alertness and interfere with sleep. The most prevalent sleep condition, insomnia, is correlated with a 24-hour rise in ACTH and cortisol secretion, which is consistent with a hyperarousal disorder of the central nervous system. On the other hand, studies have shown that sleepiness and fatigue are very common in the general population and that conditions like sleep apnea, narcolepsy, and idiopathic hypersomnia are marked by elevated levels of the pro-inflammatory cytokines IL6 and/or TNF-alpha. While taking a midday nap after a night of total sleep loss seems to be advantageous for both the inhibition of IL6 production and the restoration of alertness, sleep deficit causes drowsiness and daytime hypersecretion of IL6. According to these results, the HPA axis induces arousal, and IL6 and TNF-alpha may act as human daytime sleepiness mediators. It appears that whether a person experiences deep sleep/sleepiness or poor sleep/ fatigue depends on the interactions and disruptions of the HPA axis and inflammatory cytokines^[15]. Consequently, it may be said that insomnia is linked to an overall rise in ACTH and cortisol secretion, which nonetheless follows a typical circadian pattern. Insomniacs may be at risk for considerable physical morbidity linked with prolonged stimulation of the hypothalamic-pituitary-adrenal axis, as well as for mental illnesses such chronic anxiety and depression. With that degree of physiological and emotional arousal, the therapeutic goal for insomnia should not simply be to restore night time sleep but also to lessen the overall hyper-arousal of the HPA axis.^[16] Here also *Tila Taila* due to its *Madhura rasa*, *Usna Virya* and *Madhura Vipaka* helped in lightening *Vata Dosha* and eliminating the pathology of *Anidra*.

CONCLUSION

The efficacy of *Tila Taila Shirodhara* was observed in all the assessment criteria i.e., Athens Insomnia Scale, Hamilton's Anxiety Scale, Hamilton's Depression Scale, WHO QOL (Bref) and Ayurveda *Lakshana*. *Anidra vis-à-vis* insomnia can be treated with *Shirodhara*. This procedure has been successfully practiced to treat stress induced various disorders like anxiety, depression, tension headache, hypertension, insomnia etc. This leads to relaxation of the frontalis muscle to achieve decreased activity of central and autonomic nervous system with lowering of brain cortisone and adrenaline level.

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