



CONCEPTUAL STUDY OF SHIRODHARA

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ABSTRACT

Shirodhara as the name suggests is formed by two different terms *Shira* (head) and *Dhara* (flow) is pouring of fluids like herbal decoction, medicated oil, medicated milk, Medicated butter milk, water etc over the head continuously in rhythm from a specific height for specific period. Continuous flow of *Shirodhara* on *Shira* may improves the *Dhi* (intellect), *Dhiriti* (restraint/ retention) and *Smirti* (memory) i.e. there is balance of *Raja* and *Tama dosha* and improvement of *Satva Guna*. Through its mechanical effect, *Shirodhara* re-establishes the functional integrity between the *Doshas* located in *Shira* especially *Prana*, and *Vyana Vayu*, *Sadhaka Pitta* and *Tarpaka Kapha*. *Shirodhara* may stimulate the forebrain and produce improvement in behavior, concentration and intelligence. *Shirodhara* may stimulate it by its penetrating effect, which decreases the brain cortisol and adrenaline level, synchronizes the brain waves, strengthens the mind and spirit and provides relaxation. Some Previous studies have been done on *Shirodhara* but for greater scientific validity *Shirodhara* studies should be conducted on larger population in different clinical conditions in different population.

INTRODUCTION:

Panchakarma is the traditional *Ayurvedic* detoxification of the body and mind that facilitates rejuvenation. *Dhara*, in its literal translation, implies "flow". *Dhara* is a procedure of pouring a liquid on forehead or all over the body or on a specific part of a body in a particular rhythm for a stipulated period of time. In *Dhara* the oil or the medical decoction runs through the pores into the body, thus triggering the healing mechanism of the body and mind to restore good health. Synonyms of *Dhara* are *Dhara*, *Seka*, *Parisheka*, *Avasheka*, *Sechana*, *Prasechana*.

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Based on the area of application *Dhara* is three types; *Shirodhara* (head) , *Sarvanga Dhara* (all over the body), *Pradeshika Dhara* (over particular part of the body).¹ Application of medicated or a nonmedicated oil to the head for a specific period is known as *Murdha Taila* and is classified as *Abhyanga*, *Seka*, *Pichu*, *Basti*. They are told *Uttrottara Gunaprada* (more efficacious)². *Dhara Kalpam* from *Sahasrayogam* is considered as the authentic text book for various types of *Dhara*.

Shirodhara as the name suggests is formed by two different terms *Shira* (head) and *Dhara* (flow) is pouring of fluids like decoction, medicated oil, medicated milk, Medicated butter milk, water etc over the head continuously in rhythm from a specific height for specific period³. Based on the

Dravya used *Dhara* may be – *Taila* (oil), *Takra* (buttermilk), *Kshira* (milk), *Kwatha*(decoction), *Jala*(water) *Dhara*. Based on the *Prakriti* of the Patient *Dravya* can be selected. *Sneha* in *Vataja*, *Kshira* in *Pittaja* and *Takra* in *Kaphaja*. Based on the temperature of the *Dravya Dhara* can be done as *Ushna Dhara* or *Shita Dhara* depending on the *Dosha* status. In *Vata Kapha* conditions, it is better to use warm *Dhara Dravya* to avoid *Ama Dosha* in the *Srotas*. In *Pitta Rakta* conditions *Dhara Dravya* may be cold to pacify the *Pitta Dosha* pathologies. By bringing about changes in the *Dhara Dravya* and the procedure of *Dhara*, based upon the *Doshic* status, it is used as a unique and effective treatment modality.

REVIEW OF SHIRODHARA

The Patient is made to lie on his back on *Dhara* Table having round and concave extra projection with central whole to keep head over it. A wide mouthed vessel with a small hole at the bottom is hung above the head of the patient, so that the wick hanging from the vessel is about 4 *Angul* (around 8cm)above the forehead. The eyes are protected with cotton pads to prevent oil from dripping into them. The special medicinal oil, milk, or buttermilk etc that is poured into the vessel is made to flow in a continuous stream through the wick on to the upper part of the forehead. A mild oscillation should be given to maintain the flow all over the forehead. The warm oil or other medium used, is collected, kept at a

constant warm temperature, and re-circulated, and the process continues for 50 to 55 minutes in *Vataja Vikara*, 40 to 45 minutes in *Pittaja Vikara* and 30 to 35 Minutes in *Kaphaja Vikara*⁴. It should be done for 7days, 11 days, 14 days or 21 days depending upon the nature of the disease. On completion of the flow of oil, the patient is allowed to rest for a few minutes, before the residual oil is wiped from the hair. *Rasnadi Churnam* should be applied over the anterior fontanel region of the head. Patient should take bath with warm water, and if required light diet (warm food) and water, prepared with *Vatanashaka* medicines are advised. Do's and don'ts should be followed for treatment duration. Patient should be free from all the type of physical and mental stress. For drinking purpose warm water prepared with *Dhanyajiraka*, ginger and cumin seeds may be used. For washing and ablating purposes only warm water should be used.

Indications: Tension Headache, Migrane, Hair loss, Greying of Hairs, Psycosomatic Disorders, Insomnia, Dementia, Schizophrenia, Depression, Anxiety Neurosis, Mental Stress, Neurological Disorders, Cerebral Palsies, Facial Palsy, Hearing Impairment, Vertigo, Neuralgia, Hypertention, Neuropathies, for rejuvenation of the body, relaxation of mind and intellect, sensorium and to provide a sound sleep.

Dhara Dosha (complications): If *Dhara* is performed from more height, very fast or

very slow, then it may produce *Daaha* (burning sensation), *Murchha* (Fainting), *Shoola*(pain), *Chhardi*(vomiting), *Raktapitta* (Bleeding Disorders) and *Jvara*(fever).

Treatment of Dhara Dosh (complications): *Gandusha*, *Nasya*, *Kashayapana* with *Sunthi*, Light diet at evening, *Yusha* (green gram soup) with black pepper and On the third day *Basti* should be given in which *Saindhava* is mixed may be adopted⁵.

PREVIOUS STUDIES

Effects of Ayurvedic Oil-Dripping Treatment with Sesame Oil vs. with Warm Water on Sleep⁶: In this study 20 participants received seven 30-minute sessions within 2 weeks with either liquid. The Shirodhara procedure was conducted by a robotic oil-drip system. The outcomes were assessed by the Pittsburgh Sleep Quality Index (PSQI) for sleep quality, Epworth Sleepiness Scale (ESS) for daytime sleepiness, WHO-QOL26 for QOL, and a sleep monitor instrument for objective sleep measures. SOS improved sleep quality, as measured by PSQI. Although marginally significant, SOS also improved QOL by 0.22 points at 2-week follow-up and 0.19 points at 6-week follow-up compared with WWS. This pilot study demonstrated that SOS may be a safe potential treatment to improve sleep quality and QOL in persons with sleep problems.

Ayurvedic therapy (Shirodhara) for insomnia, a case series⁷: In this study the percentage of improvement range varied

from 3.85% to 69.57%. Comparison of means between baseline and day 5 indicated an overall significant improvement ($P < .005$), but in a comparison of baseline vs. 1 week post treatment the improvement was not significant ($P < .089$). Shirodhara with Brahmi oil may be beneficial for moderate to severe insomnia. Study suggested that it is feasible to recruit and retain participants for such therapies in the United States and is important to validate these findings using a larger sample and rigorous research design.

A psycho-physiological profile in healthy volunteers⁸: The study found a significant improvement in mood scores and the level of stress ($P < 0.001$). These changes were accompanied by significant decrease in rate of breathing and reduction in diastolic blood pressure along with reduction in heart rate. The relaxed alert state, after Shirodhara, was co-related with an increase in alfa rhythm in EEG. A standardized Shirodhara leads to a state of alert calmness similar to the relaxation response observed in meditation.

Evaluation of Insomrid Tablet and Shirodhara in the management of Anidra (Insomnia)⁹: This Study was conducted in 30 clinically diagnosed patients of Anidra (Insomnia). These patients were randomly divided into three groups of 10 patients each. It was observed that the patients of Group III treated with Tab. Insomrid and Shirodhara with milk showed highly significant improvements, whereas the Group II treated with Shirodhara and Group II treated with

Tab. Insomrid also showed significant improvements.

Pharmaco-physio-psychologic effect of Ayurvedic oil-dripping treatment using an essential oil from *Lavendula angustifolia*¹⁰: Sixteen healthy females (38 +/- 8 years old) were assigned at random to three treatments applied by a robotic oil-dripping system: plain sesame oil (plain Shirodhara), medicated sesame oil with a 0.3 volume % of lavender essential oil (lavender Shirodhara), or the control supine position. Lavender Shirodhara showed potent anxiolytic and ASC-inducing or promoting effects, and induced the largest increase in foot skin temperature.

Psychoneuroimmunologic effects of Ayurvedic oil-dripping treatment¹¹: 16 healthy females (33 +/- 9 years old) underwent a 30-minute treatment. In the second study, another 16 healthy females (39 +/- 9 years old) were assigned to either the Shirodhara treatment or control supine position for 30 minutes. The subjects receiving Shirodhara treatment showed lowered levels of state anxiety. Plasma nor adrenaline and urinary serotonin excretion decreased significantly more after Shirodhara treatment than in the control. Plasma levels of thyrotropin-releasing hormone, dopamine, and natural killer (NK) cell activity were different between control and Shirodhara treatment. These results indicate that Shirodhara has anxiolytic and ASC-inducing effects and it promotes a decrease of noradrenaline and exhibits a

sympatholytic effect, resulting in the activation of peripheral foot skin circulation and immunopotentiality.

DISCUSSION

Shirodhara works as *Samvahana* (gentle massage) on the head, and this re-establishes the functions of *Vata* and *Mana*, because *sparshendriya* (skin) is *Chetsamvahi* (inherently association with mind) and *Vata* is seated in it. Continuous flow of *Shirodhara* on *Shira* may improve the *Dhi* (intellect), *Dhiriti* (restraint/ retention) and *Smirti* (memory) i.e. there is balance of *Raja* and *Tama dosha* and improvement of *Satva Guna*. Through its mechanical effect, *Shirodhara* re-establishes the functional integrity between the *Doshas* located in *Shira* or *Hridaya* i.e. *Prana*, and *Vyana Vayu*, *Sadhaka Pitta* and *Tarpaka Kapha*. The forehead has vital spots (*Marma*) *Sringataka*, *Sthapani Marma*. According to Acharya Bhela, the site of *Chitta (mind)* is *Bhrumadhya* (region between two eyebrows) i.e. *Sthapani Marma* and *Buddhi-vaisheshika Alochaka Pitta* also situated on this region. The *Shirodhara* helps the patient to concentrate on this essential area, which eventually leads to stability in the functions of mind.

According to Yogic science *Shirodhara* is believed to act at the level of various *Chakras*. It stimulates the supreme *Chakras* i.e. *Aagya Chakra* and *Sahasrara Chakra* which are situated in the head region. These *Chakras* govern all the vital energies in the body. Due to the stimulation

of these *Chakras*, the individual achieves a sound and calm mental condition. Hence, conditions like *Anidra* are really benefitted by the *Shirodhara*. Most of the benefits of meditation and relaxation are seen to be achieved by *Shirodhara*.

In *Shirodhara*, particular pressure and vibration gets created over the forehead. The continuous rhythmic *Dhara* facilitates brainwave synchronization. These vibrations may get amplified by the hollow sinus present in the frontal bone. These may then be transmitted inwards through the fluid medium of cerebrospinal fluid (CSF). This vibration, along with a mildly increased temperature, may stimulate the higher centers in a positive way. *Shirodhara* may stimulate the forebrain and produce improvement in behavior, concentration and intelligence. It has been explained that pressure has an effect on impulse conduction through tactile and thermo receptors. If prolonged pressure is applied to a nerve, impulse conduction is interrupted and the concerned part of the body may go to rest. In *Dhara* therapy, prolonged and continuous pressure due to pouring of the medicated liquids may thus cause tranquility of mind. The space between the two eyebrows is the seat of pituitary gland which is one of the main gland of the endocrine system which may be stimulated by *Shirodhara*. Continuous flow of lukewarm liquid may dilate the blood vessels and thus increase the blood flow through the brain. It thereafter circulates and warms rest of the

body too. *Shirodhara* may stimulate it by its penetrating effect, which decreases the brain cortisone and adrenaline level, synchronizes the brain waves, strengthens the mind and spirit and provides relaxation.

CONCLUSION:

Shirodhara has encouraging results in variety of clinical conditions. Studies should be conducted on larger population in different clinical conditions in different population for greater validity.

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