

## AN THERAPEUTIC EFFECTIVENESS & ACTION MECHANISM OF SHIRODHARA: A BRIEF REVIEW

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### ABSTRACT

The Panchakarma method known as Shirodhara has gained global recognition because to its ease of use and effectiveness in treating a range of ailments. Shirodhara is a global symbol of ayurveda. Shirodhara is the application of oil or a medicated kwath (Decoction) on the forehead. According to Ayurveda, Shirodhara is also a form of bahya snehana, or external oleation therapy. Shirodhara is mostly recommended for problems of the nervous system and psyche. It's still unclear how Shirodhara achieves its therapeutic effects. Thus, an attempt has been made in this article to comprehend the likely mechanism of action of the Shirodhara method from modern, ayurvedic, and other viewpoints.

**KEYWORDS:** Shirodhara, Panchakarma, Mode of action.

### INTRODUCTION

The Sanskrit words shiro (Head) and dhara (To flow) are the roots of the word shirodhara. Shirodhara is a type of self-contained snehana practice that includes gradually drizzling liquid on the forehead. The choice of medication and its length are determined by a number of criteria, such as the patient's prakriti, the disease's features, chronicity, dosha involvement, and environmental circumstances. Shirodhara comes in a variety of specialized forms, including Takradhara, Kwathadhara, Jaladhara, Tailadhara, and Ksheeradhara. Although this

process is traditionally included under snehana karma rather than panchakarma, it is not explicitly mentioned in that context. The Ayurvedic literature describes four types of murdhatailam: Shiroabhyanga, Shirosheka, Shiropuchi, and Shirobasti. These are better in the sequence they come in.

Depending on the patient's state, this treatment may be a poorvakarma to major panchakarma or pradhan karma. Shirodhara is traditionally recommended for a wide range of illnesses, including essential hypertension, depression, phobias, anxiety disorders, sleeplessness, and other psychosomatic problems. The evidence-based approach to the traditional Ayurvedic procedure known as "shirodhara" is presented in this paper. In addition, this page offers some insight into the likely mechanism of action of shirodhara.

Recommended of Shirodhara Ardhavabhedaka, Suryavarta, Ardita, Pakshaghata, Hanugraha, Akshishula.

Nidranasha, Shirogata Vata, Shirahkampa (Ch. Sam.; Su. Sam.; B. P.; Y.R.) These days, it is Recommended for nearly all stress-related and psychosomatic conditions, including IBS, asthma, neurological conditions like headaches and epilepsy, and mental conditions like neurosis, insomnia, and psychosis, as well as psoriasis, eczema, H.T., etc.

Not recommended:- Shirodhara elevates Kapha even more in Kaphaja Vikaras, making the illness more difficult to treat.

### **Dhara**

Taila Dhara is the name for applying medicated kwath, ghee, or taila to the forehead. It enhances vocal sweetness, skin smoothness, physical strength, mental stability, speech clarity, and anorexia removal.

It helps with Shukra, Netra Roga, Timira, and other things.

In addition to increasing virility and lowering high body temperature, dhatus are nourished and the patient can sleep well.

Acharya Charaka says that a person who gets a regular head massage with oil does not experience headaches, baldness, or gray hair. His hair turns incredibly black and deeply

rooted, and his cranial bones become noticeably stronger. The person's sense organs are more in balance, their skin seems more radiant, they sleep well, and they feel content.

## DISCUSSION

Although the effectiveness of Shirodhara has been demonstrated in clinical settings, comprehending its mechanism of action remains a challenging issue. Shirodhara works well in the manner listed below. Due to Ayurveda- Because the head, also referred to as Uttamanga, is the foundation of all sensory faculties in a living being, Shirodhara provides power to the Prana and Indriyas, which are typically vitiated in cases of psychiatric illnesses. Since the mind and Indriyas are closely related, a healthy Indriya will also naturally maintain a healthy mind. Thus, Shirodhara maintains mental and physical well-being. Stress and tension can be caused by an imbalance of Sadhaka Pitta, Tarpak Kapha, Udana, and Vyana Vayu. Shirodhara's mechanical action restores the functional integrity between these Dosha subtypes.

### Impact of the medication

The solubility of the medication, the concentration and duration of contact, the physical state of the skin and exposed body part, and other elements all play a role in the absorption of substances through the skin, according to the principle of drug absorption. Oil with a good dense concentration and a longer contact time is used in Shirodhara. In addition, the skin over the scalp is thinner than the skin over other parts of the body, and the scalp absorbs more quickly.

According to the theory of medication absorption, the scalp is the site of greatest absorption, and oil absorbs more efficiently than water on average. Dermal absorption The skin is somewhat resistant to substances soluble in water and moderately permeable to chemicals soluble in fat.

Because essential oil molecules are so small, they can penetrate the stratum corneum, the epidermis' outer layer, when applied to the skin. The oil molecule then travels through the dermis, enters the bloodstream, and capillaries from this location. Additionally, sweat ducts and hair follicles are used for absorption. Numerous factors influence how well an oil molecule is absorbed. The skin's capacity to absorb oil is enhanced by increased blood flow to the surface, which is brought about by both skin warmth and circulation rate. Massage helps improve circulation and warmth.

**Shirodhara technique**

Every material has potential energy at a certain height; according to the "Law of Energy Conservation," this energy transforms into kinetic energy as the substance descends from a given height. According to this law, energy can only be changed or moved from one form to another; it cannot be created or destroyed. The mass and height of the material affect its potential energy.

Potential energy depends on mass of substance or mass energy if height is constant; the more mass a substance has, the more energy it contains. Anything that streams over the forehead from a specific height produces velocity, voltage fluctuations, and other effects because of the change in energy form either enhance or promote the conduction of nerve impulses or their production. If the momentum is modest, the energy is absorbed by the cranium and the magnitude of momentum influences the voltage differential between the creation and conduction of the nerve impulse. Current physiology suggests that the brain has constant electrical activity, which produces electromagnetic waves and is captured by the electroencephalogram (EEG).

**Temperature effects**

Mild vasodilatation will result when applying warm liquid to the forehead continuously for an extended amount of time. Shirodhara facilitates better blood flow in these regions and helps to stabilize the brain's blood supply. Vibration and temperature have the potential to stimulate the thalamus and basal forebrain, bringing serotonin and catecholamine levels back to normal.

**Shirodhara impact of continuous pressure**

Continuous pressure and vibration generated during the Shirodhara technique, enhanced by the frontal bone's hollow sinus. Vibration travels inward through the cerebrospinal fluid (CSF) fluid medium. Impulse conduction is impacted by pressure as well. In the Shirodhara technique, if a nerve is subjected to sustained pressure, impulse conduction is disrupted and a portion of the body relaxes. Prolonged and steady pressure over the forehead, achieved by soaking the skin with medicinal liquid, calms the mind and lowers stress levels by regulating nerve impulses. When the autonomic nervous system's nerve endings are stimulated, they release chemicals such as acetylcholine, which is found in tissues in an inactive state and is activated by a nerve impulse vibration brought on by a constant stream of liquid over the forehead. When the autonomic nervous system's nerve endings are stimulated, they release

chemicals such as acetylcholine, which is found in tissues in an inactive form and is activated by a nerve impulse vibration caused by a liquid being continuously poured over the forehead. Acetylcholine may also cause a drop in blood pressure, which in turn reduces the activity of the central nervous system and promotes mental tranquility. Dhara Dravya, or medicinal oil or any other liquid, is applied to the patient's forehead during the process, increasing the strength of brain waves and lowering adrenaline and cortisone levels in the brain. This element also functions as Shirodhara's anti-stress impact.

### **Marma**

Classical Ayurvedic texts state that some Marma (vital spots) are situated in the forehead and head region. This region is mostly home to Shapni, Utshepa, Avarta, Shankha, and Apanga Marma. According to Acharya Bhela, Chitta (Mana) is located in Bhrumadhya, which is between both eyebrows. It is also where Sthapni Marma is located. The majority of the Agni and Vayu Pradhana Mahabhoota Marma in the head region. The pituitary, pineal, and Sthapni Marma sites are all located at the same level. Hormones regulate the pituitary gland's function. It is the gland's master. It is able to sustain the entire human endocrine system. Anxiety and mental strain were the root causes of the endocrine system's disruption of normal function. The pituitary gland's indirect stimulation and Sthapni Marma's stimulation both alter the psycho-somatic level. Shirodhara therapy thereby relieves mental tension by restoring this gland's normal function.

### **CONCLUSION**

It is clear from the description above that Shirodhara applies the law of energy conservation. It is a restorative and purifying therapy that gets rid of pollutants, mental fatigue, tension, and any negative impacts on the central nervous system. Based on the description provided above, it is evident that Shirodhara has both procedural and medicinal effects. These can be comprehended through the lenses of Marma science, mechanical science, and Ayurveda.

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