

EFFECT OF *SHIRODHARA* IN RELIEVING STRESS: A REVIEW ARTICLE

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ABSTRACT

Stress and tiredness have become commonplace in today's society. Stress is something that almost everyone has to deal with at some point in their lives. Everyone must deal with the spectra of a frighteningly frenetic lifestyle. Modern life's harsh pace and complexity have dramatically impacted our ability to live healthier and fully in the present now. Industrialization, globalization, and competitiveness in each industry cause emotional tension and pressure in everyday life, which is hazardous to one's physical and mental health. *Rasavaha srotodushti* is caused by *chinta* (stress) and *atichintan* (overthinking), according to Ayurvedic literature, and leads to a variety of ailments. *Shirodhara* is an Ayurvedic healing therapy with neuro-immuno-

physiological and psychological effects on the human body. *Shirodhara* therapy is commonly used to treat psychiatric disorders. Although the therapeutic efficacy of *shirodhara* has been shown, the mechanism of action is complex. *Shirodhara* helps to quiet the mind and relaxes the entire body because the body, mind, and spirit are all intertwined. Stress can be caused by an imbalance of *Prana*, *Udana*, and *Vyana vayu*, *Sadhaka Pitta*, and *Tarpaka kapha*. *Shirodhara* restores the balance between various subtypes of *doshas*, which aids in stress management.

KEYWORDS: Stress, *Shirodhara*, *Rasavaha srotodushti*, Ayurvedic.

INTRODUCTION

In the current era due to diverse occupational, environmental, and societal factors, humans encounter a variety of problems in their daily lives. Frustration and worry lead to stress, which has negative consequences for our physical, social, mental, and spiritual well-being. The maintenance of life in the face of a changing world is crucially dependent on maintaining our internal environment, which is referred to as "homeostasis," and which is threatened by stress.^[1] Endocrine, metabolic, immunological, and psychiatric diseases might result from a prolonged or inadequate response to stresses.^[2] According to Ayurveda, there are three sub-*doshas* that govern the mind. *Prana vata* which is the sub-*dosha* of *vata* it governs the brain, sensory perception as well the mind. *Tarpaka kapha* which is the sub-*dosha* of *kapha* it governs the cerebro-spinal fluid. *Sadhaka pitta* (the sub-*dosha* of *pitta* that governs the emotions and their effect on the heart) is also involved.

There are three different mental states or operational attributes. *Satva*, *rajas*, and *tamas* are the three types. The sub-*doshas* become out of equilibrium when the mind is dominated by *rajas* and/or *tamas*. *Sadhaka pitta* has a scorching effect, while *Prana vata* produces a drying effect. To counteract this damage and preserve the brain, *Tarpaka kapha* produces extra cerebro-spinal fluid. However, when our mental capacities are continuously overworked (owing to an excess of *tamas* and *rajas*), *Tarpaka kapha's* lubricating value becomes excessive, and the metabolizing or digestive fire or *Agni* begins to wane. This is analogous to the effect of too much moisture in the digestive system, which can cause the digestive fire, or *agni*, to go out. *Ama* (toxins) begin to form as a result of this. *Ama* builds up in the brain's gaps and channels, mixing with the fluids produced by *Tarpaka kapha* to produce a dangerous form of cortisol, a stress indicator. Cortisol is not dangerous in and of itself; in fact, the body produces it to protect the brain. *Tarpaka kapha*, on the other hand, produces more harm than benefit when there is *ama* in the physiology. Anxiety attacks and other stress-related symptoms emerge at this point.^[3] Humans experience stress as a result of interactions with their environment that are perceived to be straining or exceeding their adaptive capacities, posing a threat to their well-being. Human stress responses reflect differences in personality as well as physical strength or health, according to the aspect of perception.

A stressor is explained as a stimulus or event that provokes a stress response in an organism. Stressors may be categorized as acute or chronic, and as external or internal to the organism.^[4]

There is an in-depth connection between our body and our mind.^[5] *Charaka* defined *Chinta* (stress)-*atichintan* (overthinking) as a causative factor of the vitiation of *Rasavaha Srotasa* body channel^[6] which will cause many diseases. *Chinta* aggravates *Vata*^[7], the vitiated *Vata* adversely affects the guts and destabilize the buddhi and smriti^[8] in keeping with Ayurveda physiology, *Tridosha* (functional units of the body) regulates the traditional physiology of the human body; they maintain or destroy the body by equilibrium or disequilibrium.^[9]

Effect of stress:- The initial stage of arousal remains the identical whether we are faced with a serious or minor. But under extreme, prolonged, or persistent pressure the body continues to manufacture extra quantities of stress chemicals, triggering further processes to take care of energy. If arousal continues, the adrenal glands manufacture anti-inflammatory chemicals that simultaneously speed tissue repair while depressing the body's immune weaponry.^[10,11] If of these changes continue, the body goes on trying to adapt under increasing strain and pressure. Eventually it breaks down. Exhaustion, form of illnesses and even death could also be the end result of uninterrupted, excessive stress.

Shirodhara could be a unique non-invasive technique of Ayurveda. Its non-invasive approach has been shown good or perhaps better for the treatment of insomnia, anxiety, stress, headache, and hypertension.^[12] In India, *Shirodhara* could be a common and age-old Ayurvedic practice, and also the clinical benefits are being observed by *vaidyas* in thousands of patients.

Total treatment duration in terms of days isn't laid out in classical texts, supported various practices in India *Shirodhara* is finished for 3, 7, 14, or 28 days.^[13,14] Many studies showed that *Shirodhara* significantly decreased levels of state of hysteria.^[15,16] Studies published by Japanese researchers showed plasma levels of noradrenaline decreased significantly within the *Shirodhara* treatment.^[17] *Shirodhara* may additionally be useful for restraining the disruption of *manasbhava* and mental disorder.^[18]

Shirodhara may be a classical and a well-established ayurvedic procedure of slowly and steadily dripping medicated oil on the middle of the forehead of the patient, resting quietly

on a snug bed. Other liquids like coconut milk, buttermilk, milk, etc. also are used looking on the individual need of the patient. The etymology of *Shirodhara* is from *shira* = head and *dhara* = a gentle flow. This procedure induces a relaxed state of awareness, which ends up during a dynamic psycho-somatic balance. a complete feeling of wellness, mental clarity, and comprehension is experienced during this process. it's quite recently that Japanese investigators have initiated state-of-the art studies on *Shirodhara* for its effects on psychoneuroimmunology.^[19] the identical group has also studied the particular effects of the volatile oil from *Lavendula angustifolia*.^[20]

Probable mode of action of *shirodhara* in managing stress

Continuous pouring of *taila* on fore head for a selected period has tranquillizing effect and induces sleep in keeping with modern science applications as ointment may withstand corneum in to vessel and produce desirable effect by reaching target organs. The continual pouring of oil in relaxed and cozy position has a further effect which may compare to cradling of mother to a toddler. This acts as sedative and soothing effect for brain and produces sleep. Medicated oil poured on fore head is also absorbed, producing tranquilizing effect by reaching the brain cortex. The chemical constituent of medicated oil may act as a neurotransmitter as deficiency of certain neurotransmitter checked hypothetically if oil percolate in to Brain cortex as explained by Johnson while treating patients of Angina by Nitro-glycerin.

DISCUSSION

Shirodhara could be a well-established *upakarma* procedure for hundreds of years. It's widely practiced in India and also in *Panchakarma* centers abroad. Besides its therapeutic usage and its *shamana karma*, its general relaxing and calming effects are well-known and value exploring with modern tools. However, there are only a few studies of *Shirodhara* in volunteers employing markers of psychosomatic relaxation.^[21] Basavraj et al. have recently investigated the effect of *Manasmitra Vataka* (an Ayurveda medication) and *Shirodhara* in patients of generalized mental disorder.^[22]

In the procedure of *Shirodhara*, particular pressure and vibration is formed over the forehead. The vibration is amplified by the hollow sinus present within the forehead. The vibration is then transmitted inwards through the fluid medium of humour (CSF). This vibration together with little temperature may activate the functions of thalamus and also the basal fore brain which then brings the number of serotonin and catecholamine to the traditional stage

inducing the sleep. Again, it's explained in modern text books of physiology that pressure has a control on impulse conduction through tactile and thermo receptors. If prolonged pressure is applied to a nerve, impulse conduction is interrupted and a part of the body may head to rest. *Shirodhara* is deeply relaxing and induces a relaxant state; these effects are mediated by the brain wave coherence, Alfa waves, and a down regulation of the sympathetic outflow. That specialize in *Agnya chakra* with closed eyes during meditation ends up in psychosomatic harmony. because the oil drips on the *agneya chakra*, it's proposed that the meditation-like effect may be a consequence of stillness of mind resulting in adaptive response to the basal stress.^[23]

CONCLUSIONS

Shirodhara is deeply relaxing and induces a relaxant state; these effects are mediated by the brain wave coherence, Alpha waves, and a down regulation of the sympathetic outflow. The middle of the forehead, which was evolution wise associated with the receptor, is connected atavistically to the epiphysis. This spot is understood as *Agnya Chakra* within the yoga tradition. Specializing in *agnya chakra* with closed eyes during meditation ends up in psychosomatic harmony. Because the oil drips on the *agnya chakra*, it's proposed that the meditation-like effect could be a consequence of stillness of mind resulting in adaptive response to the basal stress. In *Shirodhara*, patients feel relaxation both physically likewise as mentally. It strengthens the mind and spirit and this continues even after the relief. Hence it is often concluded that *Shirodhara* will certainly helpful in managing stress.

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