



Journal Homepage: - www.journalijar.com
**INTERNATIONAL JOURNAL OF
 ADVANCED RESEARCH (IJAR)**

Article DOI: 10.21474/IJAR01/1338
 DOI URL: <http://dx.doi.org/10.21474/IJAR01/1338>



RESEARCH ARTICLE

ROLE OF SHIRODHARA IN MANAGEMENT OF STRESS.

Dr.Sreeja.A¹ and *Dr.Ch.Sadanandam².

1. PG Scholar ,PG Panchakarma Department , Dr.BRKR Govt Ayurvedic College, Hyderabad, Telangana, India.
2. HOD PG Panchakarma department. Dr.BRKR Govt Ayurvedic College, Hyderabad, Telangana.

Manuscript Info

Manuscript History

Received: 18 June 2016
 Final Accepted: 26 July 2016
 Published: August 2016

Key words:-

Stress, Shirodhara, Mind.

Abstract

Today, stress and fatigue are like household commodities. Practically everyone has to face stress to some degree. Everyone needs to cope with the spectre of a scarily frenetic lifestyle, which includes punishing work schedules, incessant travel, collapsing relationships, breakneck competition, a battle against age and illness, and the desire to remain ever-youthful and glamorous. Stress is simply a reaction to a stimulus that disturbs our physical or mental equilibrium. In other words, it's an omnipresent part of life. A stressful event can trigger the "fight-or-flight" response, causing hormones such as adrenaline and cortisol to surge through the body. A little bit of stress, known as "acute stress," can be exciting it keeps us active and alert. But long-term, or "chronic stress," can have detrimental effects on health. Shirodhara therapy is extensively used for the alleviation of psychic ailments. Though clinical efficacy of shirodhara is proved, the nature of its action is complex. The body mind and spirit are intimately connected, Shirodhara helps in calming stressful mind, relaxes the entire body. Imbalance of Prana, Udana and Vyana vayu, Sadhaka Pitta and Tarpaka kapha can produce stress. Shirodhara re-establishes integrity between these sub types of doshas, thus helps in management of stress.

Copy Right, IJAR, 2016,. All rights reserved.

Introduction:-

According to Ayurveda, there are three sub-doshas that govern the mind. Prana vata is the sub-dosha of vata that governs the brain, sensory perception and the mind. Tarpaka kapha is the sub-dosha of kapha that 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 states or operational qualities of mind. These are satva, rajas and tamas. When the mind is dominated by rajas and/or tamas, the sub-doshas go out of balance. Sadhaka pitta begins to create a burning effect and Prana vata creates a drying effect. Then Tarpaka kapha generates extra cerebro-spinal fluid to counteract this effect and protect the brain.

But when our mental capacities are repeatedly overused (due to excess of tamas and rajas), the lubricating value of Tarpaka kapha becomes excessive, and begins to diminish the metabolizing or digestive fire or Agni. This is similar to the effect of too much moisture in the digestion - it can put out the digestive fire or agni. When this happens, ama (toxins) start to be created. Ama accumulates in the gaps and channels of the brain, and mixes with the fluids created

Corresponding Author:- Dr.Ch.Sadanandam

Address:- HOD, PG Panchakarma Department, Dr.BRKR Govt Ayurvedic College Erragadda ESI

by Tarpaka kapha, creating a harmful type of cortisol, the indicator of stress. Cortisol in itself is not harmful in fact, it is created by the body to protect the brain. But when Tarpaka kapha becomes excessive and there is ama in the physiology, it does more harm than good. That's when anxiety attacks and other signs of stress take over.^[1]

Stress is basic element of various human diseases and mental illness. Stress is a term that refers to the Sum of the physical, mental, and emotional strains or tensions on a person. Stress is the -wear and tear our Mind and body experiences as we attempt to cope with our continually changing environment. Stress is also called as anxiety, tension etc. Psychosocial stressor is defined as "any life event or life change that may be associated temporally (and perhaps causally) with the onset, occurrence, or exacerbation [worsening] of a mental disorder."^[2]

Feelings of stress in humans result from interactions between persons and their environment that are perceived as straining or exceeding their adaptive capacities and threatening their well-being. The element of perception indicates that human stress responses reflect differences in personality as well as differences in Physical strength or health.

Stressor: A stressor is defined as a stimulus or event that provokes a stress response in an organism. Stressors can be categorized as acute or chronic, and as external or internal to the organism.^[3]

Causes of Stress:-

One significant source of stress in modern life is the cumulative effect of various toxic waste products in the environment. Our personality, behavior, and lifestyle all have important influences on our stress level. Much stress occurs through emotions such as aggression, impatience, anger, anxiety, and fear, all of which kindle the body's stress responses. Eating an unhealthy diet, smoking, drinking, and taking drugs can also contribute further to physical strain. Stress may be generated through work, at home, within relationships, as a result of internal emotional conflict, through environment, diet, ill-health, and financial insecurity as well as through major life events such as marriage death, divorce etc. Man facing number problems in the modern society, these problems thrown the man in to mental stress. Mental stress causes the number of psychosomatic disorder like hypertension, migraine and severe headache etc.

Effects of stress:-

The initial stage of arousal remains the same whether we are faced with a major or minor. But under extreme, prolonged, or persistent pressure the body continues to manufacture extra quantities of stress chemicals, triggering further processes to maintain energy. If arousal continues, the adrenal glands manufacture anti-inflammatory chemicals that simultaneously speed tissue repair while depressing the body's immune defense system.^[4,5] If all these changes continue, the body goes on trying to adapt under increasing strain and pressure. Eventually it breaks down. Exhaustion, variety of illnesses and even death may be the outcome of uninterrupted, excessive stress.

Stress & Mental Illness:-

Primary psychological conditions caused purely by mental disorders are kama (lust), krodha (anger), lobh (greed), moha (delusion), irshya (jealousy), mana (pride), mada (euphoria), shoka (sorrow, grief), chinta (anxiety), udvega (neurosis), bhaya (fear), harsha (happiness). The psychiatric conditions caused by a combination of physical and mental (psycho-physical) disorders are unmada (psychosis), apasmara (convulsive disorder), apatantraka (hysteria), atattvabhinvesha (obsession), bhrama (illusion, vertigo), tandra (drowsiness), klama (neurasthenia), mada-murchhasanyasa (loss of sensory perception leading to coma), madatyaya (alcoholism), gadodvega (hypochondriasis).^[6]

Ayurvedic Psychology Charaka in his treatise Charaka Samhita, describes eight essential psychological factors that are negatively affected in various ways in all psychiatric disorders. The psychopathological condition is a function of these factors, which are manas (mind), buddhi, smriti (memory), sajna jnana (orientation and responsiveness), bhakti (devotion), shila (habits), cheshta (psychomotor activity) and achara (conduct). Compared to other major ayurvedic texts like Sushruta Samhita, and Ashtanga Hridayam, Charaka Samhita gives more emphasis to the view of life as a self-aware field of pure consciousness and natural intelligence where the knower and the known are one. Ayurveda is very effective for stress management and to encourage body and soul to achieve composure of the mind.^[7]

Shirodhara in managing stress:^[8]

Shirodhara is one of the special types of treatment procedure. It is the process in which medicated oils, milk, kwatha or buttermilk, is poured in a continuous stream on the forehead for a particular fixed time. It is an effective procedure indicated in psychic disorders. Miraculous healing occurs when this procedure is performed with perfection. Stimulates the 3rd eye and crown chakras, and awakens intuition and inner wisdom, Relieves stress, anxiety, depression, and insomnia through natural serotonin, dopamine, and melatonin release. Helps mental focus and concentration. Deeply relaxes mind and body. Improves sleep patterns, Pacifies vata reducing anxiety, restlessness, irritability, nervousness, fear & excessive thinking, improves mental focus and concentration.

Probable mode of action of shirodhara in managing stress: [figure-1]

Continuous pouring of taila on forehead for a specific period has a tranquillizing effect and induces sleep. According to modern science applications as ointment may pass through stratum corneum into blood vessels and produce a desirable effect by reaching target organs. The continuous pouring of oil in a relaxed and comfortable position has an additional effect which can compare to cradling of mother to a child. This acts as a sedative and soothing effect for the brain and produces sleep.

Medicated oil poured on forehead may be absorbed, producing a tranquilizing effect by reaching the brain cortex. The chemical constituent of medicated oil may act as a neurotransmitter as a deficiency of certain neurotransmitter checked hypothetically if oil percolates into the brain cortex as explained by Johnson while treating patients of Angina by Nitro-glycerine.

Effect on Marmas:-

Sthapani Marma: just below this area inside the skull lies the venous reservoir of the brain, the superior sagittal and cavernous venous sinuses.

Shankha Marma: It corresponds to the temporal bone of the skull underneath which lies the temporal lobe of the cortex, arterial branches and at the base is also some of the important structures of the brain.

Utkshapa Marma: Intracranial cavity and venous sinuses, the wall of which is made of coverings of the brain lie in this region.

Adhipati Marma: This location is well known as the anterior fontanelle on the vertical groove of the frontal bone. Underneath this point, there is the sagittal sinus of the brain and also the sulcus between two hemispheres of the cortex. Shirodhara stimulates these marmas and improves circulation, as oil used for shirodhara is always warm which causes vasodilatation of all the channels and thereby improves their circulation which in turn improves blood circulation of the brain. This improves the higher intellectual functions also. So an improvement in psychic symptoms is achieved. Improvement in circulation to the hypothalamus also improves the function of the Autonomic Nervous System as its stimulation during stress causes many physiological disturbances.

Effect on chakras: Shirodhara stimulates Agnya Chakra thereby improving the functions of the mind which is vitiated in stress as it is the place of the subtle mind. Structures like the pituitary gland, pineal body, subcortical structures of the midbrain are related with mental functions like anger, grief, fear, memory and other higher intellectual functions. Shirodhara acts at this level correcting their functions.

Effect on Autonomic Nervous System: Shirodhara may also have Alpha Adrenergic blocking effects and can thus block certain actions of adrenaline and noradrenaline. Shirodhara may also act on the adrenergic neuron probably producing their effects by modifying the synthesis, storage and uptake mechanisms of noradrenaline.

Effect on Endocrine system: The effect of Shirodhara on hormone secretion can also be postulated considering the effect on the hypothalamus as the hypothalamus is the main controller of endocrine secretions. The hypothalamic neurons which secrete the regulatory hormones are themselves under the control of specialized monoaminergic, neurotransmitter neurons which arise in the midbrain. These latter release dopamine, noradrenaline and serotonin. In turn, these midbrain nuclei are under the control of the visceral brain and are responsive to stress and emotional disturbances.

Regulation of emotional and behavioural patterns: Together with the limbic system with the hypothalamus regulates the feeling of rage, aggression, pain and pleasure and behavioural patterns of sexual arousal. Ultimately it

can be postulated that Shirodhara may be having some effect on hypothalamus resting in decrease of most of the psychic and somatic disorders.



Figure 1:- Shirodhara.

Discussion:-

In the procedure of Shirodhara, particular pressure and vibration is created over the forehead. The vibration is amplified by the hollow sinus present in the frontal bone. The vibration is then transmitted inwards through the fluid medium of cerebrospinal fluid (CSF). This vibration along with little temperature may activate the functions of thalamus and the basal fore brain which then brings the amount of serotonin and catecholamine to the normal stage inducing the sleep.^[9] Again, it is explained in modern text books of physiology 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 part of the body may go to rest. In Dhara therapy, prolonged and continuous pressure due to pouring of the medicated liquid may cause tranquility of mind and induce natural sleep. 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. Focusing on Agnya chakra with closed eyes during meditation leads to psychosomatic harmony. As the oil drips on the agneya chakra, it is proposed that the meditation-like effect is a consequence of stillness of mind leading to adaptive response to the basal stress.^[10]

Conclusion:

The procedural effect of Shirodhara itself seems to produce a relaxation response irrespective of the medicament used. In Shirodhara, patients feel relaxation both physically as well as mentally. It strengthens the mind and spirit and this continues even after the relaxation. Stimulation of Marmas may have beneficial effect on the body, due to their connection with higher centers. Shirodhara is done directly on the head, so it may be considered as good for relieving the diseases caused by stress and strain as well as other mental factors. Hence it can be concluded that Shirodhara will definitely be helpful in managing stress.

References:-

1. Article-Stress relief and Ayurveda, jiva Ayurveda, <https://jiva.com>
2. Joshua Cowa, Shoba Raja, Amali Naik and Gregory Armstrong (2012) Knowledge and attitudes of doctors regarding the provision of mental health care in Doddaballapur Taluk, Bangalore Rural district, Karnataka, International Journal of Mental Health System: 6:21.
3. Prakash B Behere, Anweshak Das, Richa Yadav, Aniruddh P Behere(2013) Ayurvedic concepts related to psychotherapy, IJP, Volume : 55 | Issue : 6 | Page : 310-314.
4. David Frawley, Ight Miller, Dr and Bryan (2011) Ayurveda and the Mind, Motilal Banarasidas Pub. 5. Sundaram, K. Dr. (1993) —Manoroga Chikitsa Ayurvedathill, in Ayurveda seminar Text, Aryavaidyasala, Kottakkal. P. 10.
5. Ramu M.G. and B.S. Venkataram(1985) Manovikara(Mental disorders) in Ayurveda, Anc Sci Life; 4(3): 165–173
6. Ramesh U and Kurian Joseph(2012) Management of stress induced disorders in IT professionals through Ayurvedic wellness in tourism in Kerala, International Journal of Research in management, Issue 2, Vol. 6.
7. Dr.Divya Kajaria Text Book of Panchakarma, The chaukambha Sanskrit Bhavan Series 166.
8. Spring 1995 issue of the journal of The Ayurvedic Institute ‘Ayurveda Today’, Ayurvedic practitioner Ed Danaher
9. Shirodhara in management of hypertension a review article. International Ayurvedic Medical journal ISN-23205091. www.iamj.in.