

EFFECT OF TAKRADHARA IN ESSENTIAL HYPERTENSION: A REVIEW

Vda. Channamma Hiremath^{1*} and Vd. Samarth Kasliwal²

^{1*}M.D Kayachikitsa, Professor, S.G.R.A Mahavidhyala Solapur.

²M.D. Scholar, Kayachikitsa, S.G.R.A Mahavidhyala Solapur.

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*Corresponding Author

Vda. Channamma
Hiremath

M.D Kayachikitsa,
Professor, S.G.R.A
Mahavidhyala Solapur.

ABSTRACT

Essential hypertension, a chronic elevation of blood pressure without identifiable cause, is a major global health concern. Hypertension is called a silent killer because it rarely causes symptoms before it damages the heart, kidneys or brain. It is estimated that 600 million people are affected worldwide with hypertension. In Ayurveda, it is often correlated with Raktagata Vata or Vyana Bala Vriddhi. Many works have been carried out on hypertension to evaluate the perfect diagnosis and mode of treatment on the basis of Ayurvedic principles, different nomenclatures also have been adopted by Ayurvedic scholars like Shonitamada, Raktagata Vyana Vayu, Shiragatavata, Raktavrita Vata, Raktavridhi, Raktavata etc. Ayurveda offers holistic approaches to manage such conditions, with Takradhara—a specialized form of Shirodhara using medicated buttermilk—emerging as a promising

therapy is gaining attention for its calming effects on the nervous system and potential role in managing hypertension. Thus, the review investigates the effect of Shirodhara on systolic and diastolic blood pressure and its impact on clinical symptoms like palpitation, insomnia, giddiness, fatigue, and headache in essential hypertensive patients.

KEYWORDS: Hypertension, Shirobhitapa, Cardiovascular diseases.

INTRODUCTION

Essential hypertension also known as idiopathic hypertension or primary Hypertension is the form of Hypertension which has no identifiable cause.^[1] It is a chronic condition of a public health concern, as it is associated with the causation of coronary heart disease, stroke, and chronic heart disease.^[2] According to WHO estimates, one in every eight deaths was caused

by high blood pressure. Raised blood pressure accounts for 7.5 billion deaths of the total all causes of mortality annually around the globe.^[3] It is anticipated to be increased to 1.56 billion adult hypertensive cases.^[3] In India, the prevalence of hypertension is high, with estimates indicating a rising trend. Hypertension affects over a billion people globally and is a leading risk factor for cardiovascular morbidity and mortality.^[4] Essential hypertension, accounting for 90–95% of cases,^[1] is often linked to stress, lifestyle, and psychosomatic factors. Ayurveda conceptualizes hypertension as a manifestation of Vata-Pitta imbalance, and therapies like Takradhara aim to restore doshic harmony. The main pathogenesis occurs in Rasa and Raktadhatu in blood vessels. It is Vata Pitta Pradhana Tridoshaja disorder.^[5]

Factors associated with increased blood pressure are obesity, high salt intake, stress, low potassium intake, low calcium intake, high alcohol consumption, aging, and insulin resistance.^[6]

The disease Essential Hypertension is neither denoted in Samhita nor in any Samgraha Granthas, but it is stated that every disease cannot be given nomenclature.^[7] The term “hypertension” was coined after the invention of sphygmomanometer, however before that about its existence, one can trace the pathway on the tract of symptomatology.

Hypertension is a risk factor for a variety of disorders, including cardiovascular disease, stroke, heart failure, chronic renal disease, dementia, cancer, and osteoporosis.^[8,9,10] Considering the idiopathic nature and chronicity of hypertension, both diagnosis and its management have a lot of impediments. Currently, the only successful management method for hypertension is antihypertensive medication therapy. Polytherapy has become the mainstay of treatment.^[11]

Shirodhara, a term from Sanskrit, joins “shira,” meaning “head,” and “dhar,” representing “continuous flow.” This traditional Ayurvedic therapy involves a gradual and steady stream of therapeutic oil directed onto the forehead of patients.^[12,13] Various liquids other than oil, like coconut water, buttermilk, or milk, as well as herbal concoctions, may be employed as needed. There are various kinds of Shirodhara, including Taildhara, Jaladhara, Thakradhara, and Ksheeradhara.^[14] The precise duration of a full Shirodhara treatment was not stated in Indian Ayurvedic texts. However, different practices in India suggested that it was given for 3, 7, 14, or 28 days.^[15] A constant stream of warm liquid applied to the forehead over an extended period may result in local peripheral vasodilatation.^[16] Shirodhara enhances blood

flow to various locations and aids in regulating the brain's blood supply. Combining vibration and warmth may improve thalamus and basal forebrain function, restoring normal serotonin and catecholamine levels.^[12,17]

Takradhara a subtype of Shirodhara where medicated buttermilk is poured in a continuous stream over the forehead, traditionally used for mental stress, insomnia, and neurological disorders. This review looks at how takradhara, an old Ayurvedic therapy, might help manage high blood pressure. Past studies were few and small, so it's hard to say if it works. By combining results from different types of research, this review hopes to understand Takradhara's effects better and show where more research is needed to support its use.

STUDY OBJECTIVES

Among two groups of essential hypertensive patients receiving takradhara along with Ayurveda medication

1. To measure and compare systolic and diastolic blood pressure.
2. To compare the percentage relief in clinical symptoms like palpitation, insomnia, giddiness, fatigue, and headache of essential hypertensive patients.

Selecting the studies

After removing duplicate records, titles, and abstracts from the database, the results were screened, followed by a full-text examination of possibly relevant abstracts against inclusion and exclusion criteria. Screening and full-text review were carried out separately in duplicate by two independent authors.

Inclusion criteria

Randomized and non-randomized control trials, experimental studies, pre-post single group design, case studies or series and observational studies with Takradhara as an intervention or as an adjunct therapy for essential hypertensive patients of age group 18–80 years with no other comorbidities were included.

Exclusion criteria

Ayurvedic review articles on hypertension, studies on secondary hypertension with other comorbidities, and relevant animal studies were also eliminated.

TYPES OF TAKRADHARA

- Ekanga Takradhara: When Dhara done over a portion of the body for Example - In case of a limb afflicted with Psoriasis.
- Sarvanga Takradhara: It is also called Kaya Takradhara. When Dhara done for the whole body that useful in stress, fatigue.
- Shiro Takradhara: When Dhara done over the head of the patient, useful in hypertension, headache, migraine etc.^[18]

Properties of Takra

- Rasa - Kashaya, Amla, Madhura
- Guna - Grahi, Laghu, Ruksha
- Virya - Ushna
- Vipaka - Madhura
- Karma - Deepaniya, Vrishya, Prinana, Vata Nashaka.^[19]
- Acharya Charaka is described 3 types of Takra in Grahani Chikitsa on the basis of property. They are^[20]
 - 1) Ruksha Indication
 - 2) Ardha Sneha Yukta Kaphadosha Pitta dosha
 - 3) Purna Sneha Yukta Vata dosha

TAKRADHARA PROCEDURE

Purva Karma

Preparation of Takra for Dhara procedure

Required materials

- 1) Milk - 1 litre
- 2) Dadhi – As required amount
- 3) Amalaki churna - 150 gm
- 4) Jala (Water) - 3 litres
- 5) Oil for Tailam – As required amount
- 6) Medicine for Takradhara - Vacha, Bramhi, Shankhapushpi, Yastimadhu

Takra preparation

At first, milk and water should be taken in a vessel. Then Vacha, Bramhi, Shankhapushpi, Yastimadhu are together kept on a cloth and made a Pottali. This Pottali put into the vessel

which filled with milk and water like as Dola Yantra. They should be heated on moderate fire continued to remains 1/4th part of the mixture. Then, the remaining 1/4th mixture mixed with Dadhi (curd) and kept for overnight. Next morning shows all the mixtures converted to Dadhi (curd) forms and 4 parts of water added with it. Then it churned and removed Navanita (butter milk) from it. Lastly, Takra is prepared.

Preparation of Amalaki Kashaya

Amalaki churna should be taken in a vessel along with 18 kudavajala (water) and kept on the gas stove for boiling it, reduced to 1/6th of total quantity.^[21] At last, Amalaki kashaya is prepared for Takradhara. Thereafter, prepared Takra and Amalaki kashaya mixed properly and it should be lukewarm in nature. Then this mixture is used in dhara procedure.

2) Preparation to the patient

On an auspicious day at morning time, the patient should be advised for pray to God and evacuating the bowel and urine and then, the patient should lie in supine position on the Droni which was placed on northern area of the Panchakarma theatre. A pillow should be placed under the neck. The eyes should be covered with eye pads and gauze should be tied around the head above the eyebrows. The ear should be plugged with cotton pieces.

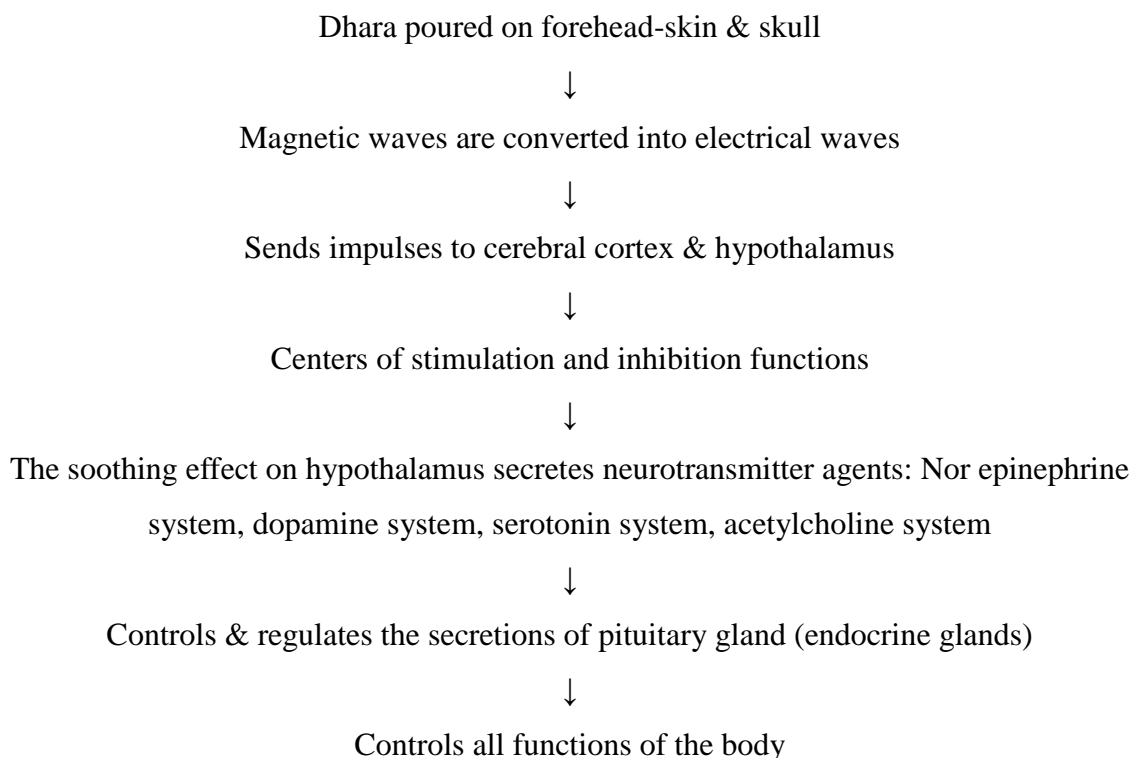
Pradhan Karma

As per clinical practice method, required amount of Kshiri-bala oil or any specific oil according to disease condition may be applied over the patient's head. After the proper preparation of Takra for dhara, it should be kept in a dhara pot. Then, the dhara pot should be kept in a certain height in such a way as to allow flowing of the liquid over the forehead of the patient. The tip of dhara pot should be 4 Anguli in height above the forehead of the patient.^[22] Then, the dhara procedure should be started and continued up to usually 45 minutes. The falling Takra should be poured again into the vessel / Dhara pot after recollecting from the Droni.

Paschat Karma

After the completion of dhara procedure, the patient's head is washed with Amalaki kwatha and wiped with towel. Then Rasnadi choorna is applied on the head. Patient is advised to take rest for a period, then to take bath with lukewarm water. After bath, he / she should wear a clean cloth.

Pharmacodynamics of Shirodhara



Clinical Indications^[23,24]

Takradhara is recommended for a variety of conditions:

- Neurological: insomnia, hypertension, diabetic neuropathy, migraines, and paralysis
- Dermatological: psoriasis, dandruff, premature hair greying
- Psychosomatic: anxiety, depression, obsessivecompulsive disorder, and schizophrenia
- Circulatory and Metabolic: hypertension, vascular disorders, low immunity, and fatigue

DISCUSSION

Takradhara, an Ayurvedic therapy involving the rhythmic pouring of medicated buttermilk on the forehead, influences the brain's neuroendocrine functions by stimulating the pituitary, pineal glands, and chakras. It regulates hormones, relieves stress, and aids in depression through enhanced dopamine and serotonin activity. Targeting Sthapani Marma, it may reduce hypertension via baroreceptor reflexes. It penetrates through sebaceous glands into deeper tissues, promoting vasodilation, hormone balance, and mental clarity, especially under stress-related conditions. The treatment of Shirodhara supports both physiological and emotional healing.^[26,27]

In hypertension, Takradhara reduces symptoms such as headaches and anxiety by stimulating the Sthapani Marma, located between the eyebrows. This point, considered a Sira Marma, is believed to have reflexive effects on the baroreceptor pathways that regulate blood pressure. The continuous flow of Takra over the forehead induces a cooling effect that pacifies the aggravated Pitta Dosha, often associated with heat and inflammation, providing relief in Pitta-related disorders.^[25]

CONCLUSION

Takradhara is a distinctive Ayurvedic procedure with extensive therapeutic benefits for both psychosomatic and physical ailments. This noninvasive, cost-effective therapy, involving the medicated buttermilk stream over the forehead, harnesses the synergistic effects of Takra's medicinal properties and the therapeutic technique itself. Takradhara's influence on neurotransmitter release, Dosha balance, and cerebral circulation enhances neurocognitive abilities and mental tranquility, rendering it particularly effective in managing psychosomatic disorders, hypertension, dermatological issues, and metabolic dysfunctions.

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