

## PHYSIOLOGICAL EFFECT OF TAKRADHARA ON EKAKUSHTHA (SCALP PSORIASIS) - A REVIEW

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### ABSTRACT

Psoriasis is a noncontagious, autoimmune condition that affects the skin and the joints. Psoriasis is involving their entire body a diagnosis of Psoriasis was made on correlated with *Ekakushtha* described in *Ayurveda* texts. Psoriasis is compared with *Ekakushtha* due to its extreme similarity. Areas of the body most usually affected are the back of the forearms, shins, and scalp. The scalp is the most common localization in Psoriasis. Psoriasis may be localized to the scalp with no involvement elsewhere. There may be discrete plaque or there may be confluent patches covering large of the scalp or whole of the scalp may be affected. Stress and altered immunity plays a major role in the pathogenesis of different chronic diseases including Psoriasis. It is well

know that psychological stress plays an important role in the pathos-physiology of numerous skin disorders. The skin disease best known as stress associated and by for the most intensively studied for this association is Psoriasis. In *Ayurveda* that connection exists between the skin and mind. The term *Shirodhara* is derived from two Sanskrit words: *Shiro* and *Dhara*. *Shiro* means head and *Dhara* means to flow. When *Takra* is poured on the forehead & scalp it is called it is called *Takradhara*. *Takradhara* is a traditional *Ayurvedic* procedure useful in treating psychosomatic disorders, Psoriasis. Buttermilk contains large amount of lactic acid. It is scientifically proved that lactic acid is used to moisten & lessen the appearance of thickened Psoriatic scales.

**KEYWORDS:** Scalp Psoriasis, *Ekakushtha*, Stress, *Takradhara*.

## INTRODUCTION

In *Charka Samhita Ekakushtha* is described as *Vat - Kaphaj* disease. *Ekakushtha* has signs and symptoms i.e. *Aswedanam*, *Mahavastu* and *Matsyashakalopamam*, which can be compared with symptoms of Psoriasis.<sup>[1]</sup> It is one of the burning problems having social importance. Increased stress and life style are main predisposing factor which is accounting for wide spread prevalence of this disease. Thus the word *kushtha* means that which destroys with certainty. Its killed patient physically as well as psychologically.<sup>[2]</sup> Psoriasis consist of itchy, deep pink to reddish, well demarcated, indurated plaques with silvery -micaceous scaling present particularly over extensor surface and scalp.<sup>[3]</sup> Ayurveda management in chronic psoriasis involve medicines like some combination of herbal *choorna* .With medicine *virechana*, *takradhara*, *siravedha*, *awagah*, *nadi-sweda*, also advised.<sup>[4]</sup> *Dhara* is the process of consecutively a fine stream of liquid medicaments for a stipulated period of time. Though this process is defined in *Ayurvedic* classics as *Moordha taila*, *Seka*, *Pariseka*, When *Takra* is poured on the forehead & scalp it is called it is called *Takradhara*. *Takradhara* is a traditional *Ayurvedic* procedure useful in treating psychosomatic disorders, Psoriasis.

## MATERIALS AND METHODS

Only textual material has been used for this study, from which various references have been collected. *Ayurvedic* text & available commentaries on it, modern text & related websites have also been searched.

### Psoriasis

Psoriasis is chronic non-infectious inflammatory skin disorder seen in daily practice .Lesion varies from few milli meters to several centimeter, stress and life-style are main predisposing factors. Psoriasis is the most common dermatologic disease affecting up to 2.5% of world population. In India 0.8% population is suffering from Psoriasis. Psychological stress is one of the major triggering factors in the exacerbation of the disease. In *ayurveda* most of the skin disorders can be taken under general term “*Kushtha*”. Psoriasis is considered as type of *Kushtha* and it is correlated to various varieties of “*Kshudra kushtha*”. Among them “*Ekushtha*”, “*Kitibhakushtha*” are the commonest due to resemblances in signs and symptoms. In Psoriasis individual lesions are demarcated red with dry silvery White scaling. Lesion most commonly seen on the elbow, knee, lower back etc. viz. the extensor aspects of the body.

**Hetus of Psoriasis<sup>[5]</sup>**

- 1) *Ahara* – Improper and irregular diet causes the disturbance of *Vata dosha*, Dairy product like *dadhi* in daily diet, *Nava dhanya*, *Anup mamsma-matsya* sevan
- 2) *Vihara- Chhardi veg dharana* (suppression of natural urge), *Ratri jagaran* (night duty)
- 3) ***Mansika nidana*** – ***Chinta***, *bhaya* and *Vegavarodha* causes *Vata vruddhi*.

In all types *Kushtha*, the basic body components to be vitiated are called as *Saptakodravysangraha* and it comprises *Tridosha* (*vata*, *pitta*, *kapha*), *Twaka*, *Rakta*, *Manas lakshan* have important role in manifestation. (*cha.chi* 7/9) In *Ekkushtha* dominant *dosha* are *vatakapha* (*cha chi* 7/29) and *twacha* is the main *doshadhishtan*.

**Psoriasis and Stress relation**

Stress and altered immunity plays a major role in the pathogenesis of different chronic diseases including Psoriasis. It is well known that psychological stress plays an important role in the patho-physiology of numerous skin disorders. The skin disease best known as stress associated and by far the most intensively studied for this association is Psoriasis. In *Ayurveda* that connection exists between the skin and mind. Psoriasis is a non-infectious chronic inflammatory skin disorder clinically characterized by erythematous sharply defined papules and rounded plaques covered by silvery micaceous scales. Psoriasis is notoriously chronic and is well known for its course of remissions and relapses.<sup>[6]</sup> It has been known since antiquity in *Ayurveda* that a connection exists between the skin and mind. *Ayurveda* recognizes that the connection between the brain and the skin is more than a physiological fact. The skin is the important organ of communication with the external world and has an eternal relationship with mind (*psyche*). Therefore, more than a cosmetic nuisance, psoriasis produces anxiety, depression and other psychological problems that affect the quality of life. Although dermatological disorders specially psoriasis are usually not life-threatening, but they can be life-ruining due to their visibility.<sup>[7]</sup>

*Annamaya Kosha* is the grossest health, constituting the physical form of the body, with biological functions. This component is made of solid matters or *Panchamabhutas* (Earth, water, fire, air and space). The *Manomaya Kosha* is referred as mind. This *Kosha* is the dwelling place of thoughts, emotions, desire, likes and dislikes etc. Any disturbance in this *Kosha* results into a pathological state called stress. A chronic worry, tension, anxiety disturbs the harmony of this component.<sup>[8]</sup> The imbalance at the *Manomaya Kosa* is the root cause of stress induced psychosomatic disorders like psoriasis. Amplified likes and dislikes at the

*Manomaya Kosa* results in distressful emotional surges called '*Aadhi*'. The long standing, uncontrolled surges of stressful reactions like *Kama* (intense desire), *Krodha* (anger), *Bhaya* (fear), *Matsarya* (jealousy) etc. are responsible for disturbed lifestyle. These agitations cause violent fluctuations in the flow of *Prana* in the '*Nadis*' which are considered as channels of *Prana* and are distributed all over the body through their branching system. Each and every cell in the body, the components of *Annamaya Kosa* (physical body), requires adequate quota of its *Pranic* energy to carry on its biochemical processes in an efficient way. It is well acknowledged that the biological system fails to function, if it does not get the adequate quantum of *Prana*. Thus, the disturbances in the *Manomaya Kosa* percolate into *Annamaya Kosa* through disturbed/vitiated *Prana* flow.

### **Sthana of Manas**

It is conventional in *Ayurveda* to attribute anatomical sites for conceptual entities to provide some concrete features to abstract ideas. Two bases viz. *Hridaya* and *Shiras* are considered as the locations of mind in *Ayurveda*. It is possible to conclude that the sensory and motor functions of mind are attributed to brain while the psychological functions especially the emotional aspect of psyche to heart.

### **Relation of Mana with Brain**

The entity *Manas* cannot be compared with any one of the anatomical structure in the body, because much of the concepts regarding *Manas* are explained at metaphysical level. But at functional level, the activity of the brain bears much similarity with that of *Manas*. These higher intellectual functions like learning memory, and elaboration of thoughts, attention etc. are attributes of *Manas* in *Ayurveda*. Thus it is worth discussing here, some of the higher intellectual functions in the brain are that are similar to that of *Manas*.

1. Prefrontal Cortex
2. Limbic System
3. Amygdala
4. Hypothalamus
5. The Basal Ganglia

### **TAKRADHARA**

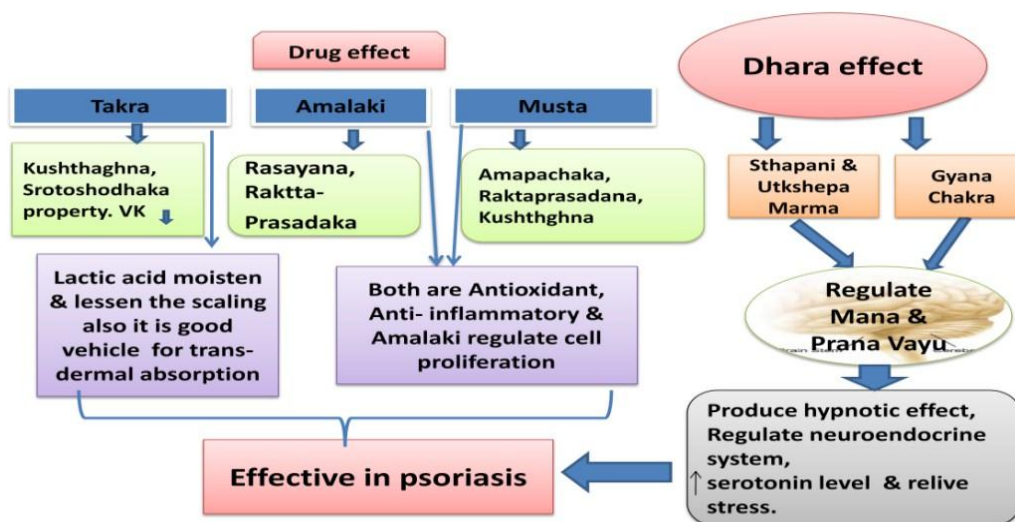
'*Dhara*' is the procedure in which medicated oil, milk or buttermilk is poured in a continuous stream on the head especially on the forehead. In *Ayurvedic* texts *Shirodhara* can be correlated with *Shiroparishika*. *Shirodhara* is the process of pouring the liquid over the head.

It can be of three types *Taila*, *Kshira* and *Takra*. If medicated or plain,, *Takra* is poured on the forehead & scalp, it is called *Takradhara*. There are many varieties of *Moordhnidhara*, among them *Takradhara*, *Ksheeradhara*, *Stanyadhara* and *Snehadhara*. *Takra* has *Pancha-Rasa* except *Lavana Rasa*, *Amla Vipaka*, *Ushna Virya*, and *Vata Kaphaghna* property. *Takra* (Buttermilk) contains large amount of lactic acid. *Takradhara* is a special *Ayurvedic* treatment that uses medicated buttermilk. *Takra* means buttermilk and *dhara* is a stream.

The physiological benefits of *Takradhara Ayurvedic* Treatment are very parallel to that of *shirodhara*. However, the key difference being use of medicated buttermilk. There are varieties of *dhara*. They are mainly grouped as *Moordhanya* (on the head), *Sarvanga* (all over the body) and *Pradeshika* (local). The most important of these is *Moordhyanya*. It is employed in diseases like insanity, diseases of the head and eyes, chronic cold, sinusitis (*pinasa*), diseases of the ear, mouth, *Vata* diseases, etc. the second is *Sarvangadhara*. It is to be done in *Sarvangavata* (*Vata* affecting the whole body), *Sarvangeenashopha* (anasarca, swelling all over the body), etc. *Pradeshika* or local in cases of rheumatoid arthritis, swelling, ascites, abscesses, wounds, etc.

#### **Effect of *Takradhara* on *Ekakushtha* (Scalp Psoriais)**

This *Dhara* treatment cures premature graying of the hairs, fatigue, infirmity and emaciation, headache, lack of vitality, Pricking pains of the palm and sole, diabetes, lack of proper functioning of the limb, joints, pain in the chest, heart diseases, disgust for food, indigestion, dyspepsia and diseases of the eyes, nose throat and ears. This *Dhara* also alleviates the derangement of the three *doshas* and improves the power of all sensory organs. *Ayurvedic* approach to any disease is like *Kitibhakushta* (Psoriasis) there are somatic symptoms like *kandu* (itching), *Ghana* (thickness), *Parusha* (Dry) and Psychological symptoms like anxiety, stress, depression, and etc. are present, so it is considered as psychosomatic disorders in which both mind and body are affected.



Mode of action Takradhara (Fig.1).

#### Effect on *Marmas* which reduce the Stress

- 1) **Sthapani Marma:** just below this area inside the skull lies the venous reservoir of brain the superior sagittal and Cavernous Venous Sinuses.
- 2) **Shankha Marma:** It corresponds to temporal bone of the skull underneath which lies the temporal lobe of cortex arterial branches and at the base is also some of the important structures of the brain.
- 3) **Utkshepa Marma:** Intracranial cavity and venous sinuses the wall of which is made of coverings of the brain lie in this region.
- 4) **Adhipati Marma:** This location is well known as the anterior fontanelle on the vertical groove of the frontal bone. Beneath this point there is sagittal sinus of the brain and also the sulcus between two hemispheres of the cortex. *Takradhara* stimulates these *marmas* and improves circulation, as oil used for *Takradhara* is always warm which causes vasodilatation of all the channels and thereby improving 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 hypothalamus also improves the function of Autonomic Nervous System as its stimulation during stress causes many physiological disturbances.
- 5) **Effect on Chakras:** *Takradhara* stimulates *Agya Chakra* there by improving the functions of mind which is vitiated in stress as it is the place of delicate mind. Structures like Pituitary gland, pineal body, and sub cortical structures of mid brain are related with mental functions like anger, grief, fear, memory and other higher intellectual functions.
- 6) **Effect on Autonomic Nervous System:** *Takradhara* may also have Alpha Adrenergic



blocking effects and can thus block certain of adrenaline and nor adrenaline. *Takradhara* may also act on the adrenergic neuron probably produce their effects by adjusting the synthesis, storage and uptake mechanisms of noradrenalin.

- 7) **Effect on Endocrine system:** The effect of *Takradhara* on hormone secretion can also be postulated considering the effect on hypothalamus as hypothalamus is the main supervisor 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 mid brain.
- 8) **Regulation of emotional and behavioral patterns:** Together with the limbic system with the hypothalamus regulates the feeling of rage, aggression, pain and pleasure and behavioral pattern of sexual arousal.
- 9) **Effect on Central nervous system:** The hypothalamus controls many body activities and is one of the major regulators of homeostasis. Sensory input from the external and internal environments ultimately comes to the hypothalamus via sensory pathways originating in somatic and visceral sense organs. Impulses from sound, taste, and smell receptors all reach the hypothalamus itself continuously monitor osmotic pressure, certain hormone concentrations and the temperature of blood.

### Mode of Action of *Takradhara*

*Takradhara* action can be understood in 2 ways- Pharmacologic action of materials absorbed through the skin (Therapeutically effect), The Procedural effect of *Takradhara* induced by the somato-autonomic reflex through thermo sensors or pressure sensors in the skin or hair follicles via the trigeminal cranial nerve. The process of *Takradhara* might accelerate the function of *tarpaka kapha*, and may also bring in the specific action as demanded by the disease condition like blockage of channels by *kapha*.

*Marmas* are the *Pranas* may be correlated with vital energy of body. On stimulation they activate immune system. *Shirodhara* stimulates the *Marmas* like *Sthapni*, *Shankh*, *Utkshepa* and *Adhipati Marmas* and improves circulation. Liquid used for *Shirodhara* is always luke warm which causes vasodilatation of all the channels and thereby improving their circulation which in turn improves the blood circulation of brain. This improves the higher intellectual functions also. So by this process improvement in psychic symptoms is achieved. Improvement in circulation to hypothalamus also improves the function of Autonomic Nervous System as its stimulation during stress causes many physiological disturbances.

*Takra* has *Pancha Rasa* except *Lavana Rasa*, *Amla Vipaka*, *Ushna Virya* & *Vata Kaphaghna* property. *Takra* (buttermilk) has *Vata- Kaphaghna* properties & can be used locally and also internally to treat the *Ekakushtha* (Psoriasis) which are *Vata Kapha* dominant. Buttermilk contains large amount of lactic acid.<sup>[8]</sup> It is scientifically proved that lactic acid is used to moisten & lessen the appearance of thickened psoriatic scales. There are so many medicaments in the market which contain lactic acid & salicylic acid. These help moisten and lessen the appearance of thickened psoriasis scales. Some available preparations include *Salex* (salicylic acid), *AmLactin* (lactic acid), or *Lac-Hydrin* (lactic acid) lotions. They generally do not have a risk of problematic skin thinning (atrophy).<sup>[9]</sup> Researches with *Takradhara* containing *Amalaki* & *Musta* which has anti-inflammatory & antioxidant property, lactic acid in *Takra* may help in the transdermal absorption of these drugs & have systemic anti-inflammatory, antioxidant effects in psoriasis. In psoriasis, cells divide faster than normal which produces scales. The ascorbic acid content of *Amalaki* fruit has antioxidant activity and immunomodulatory effects. Scientific researches on *Amalaki* extract shows inhibited cell proliferation, induced apoptosis, and increased reactive oxygen species production.<sup>[10]</sup>

## DISCUSSION

*TakraDhara* also alleviates the derangement of the three *doshas* and improves the power of all sensory organs. *Ayurvedic* method to any disease is like *Kitibhakushta* (Psoriasis) there are somatic symptoms like *kandu* (itching), *Ghana* (thickness), *Parusha* (Dry) and Psychological symptoms like anxiety, stress, depression, and etc. are present, so it is considered as psychosomatic disorders in which both mind and body are affected. *Takardhara* Stimulation of *Sirogata marmas*, meditation and awakening of *chakras*. Pressure effect of *Dhara* stream and its consequent effects of above said factors evidently proved that the claim of *Ayurvedic* texts as “*Siras talvantara gatam sarvendriyaparam manah*” (*Bhel Samhita*). *Takaradhara* important to reduce *Ekakushtha* (Scalp Psoriasis).

## CONCLUSION

Now days, *Takradhara* is becoming popular, because of its wonderful effects like relieving fatigue and promoting relaxation. As *Takra* is poured on the forehead, the nervous system is deeply stilled. The brain waves slow down and become coherent. Once the brain is quieted the *Pranavaha* and *Manovahasrotas* begin to transport *Prana*, oxygen and other necessary nutrients to the brain. When the brain is quieted and the *srotas* are activated the cerebral



circulation is greatly improved and access these mood stabilizing receptors is enhanced. By the help of neuropsychological evidences of ANS and CNS it can be very well inferred that *Dhara chikitsa* is not merely a local application of medicated fluids but it has got wonderful effect through normalizing the metabolism of neurotransmitters and increases the intensity of alpha brain waves. This goes a long way in controlling and promoting mental faculties and thus plays an important role in the management of *Psoriasis* as an adjuvant therapy along with the front line therapy with drugs and helps in speedy recovery of the patient.

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