



A Conceptual Review on Mode of Action of Griva Basti in Manyastambha

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Abstract: Griva Basti is a *snigdha drava swedana* which is a form of *Bahiparimarjan chikitsa*. Though there is no direct reference of grivabasti in ayurvedic text, it is basically developed from *Netra tarpana*, *Shiro basti* etc. mentioned by different acharyas and widely practiced in Keraliyan Panchakarma. It is an age-old treatment for acute and chronic neck pain disorders. Nowadays, the most common cause of neck pain is *Cervical spondylosis*, a musculoskeletal degenerative disorder having an age-related prevalence. In Ayurveda all the degenerative disorders come under the broad spectrum of *Vatavyadhi*. Manyastambha is a *Nanatmaja Vata Vyadhi* with symptoms of *ruka* and *stambha* and can be correlated with cervical spondylosis. Griva basti rejuvenates the cervical vertebra and increases the flexibility of the joints. In this procedure hot medicated oil is poured inside a ring made of wheat flour over cervical region and kept for a specific period of time. This study will vividly discuss the potential mode of action of Griva basti in manyastambha.

Keywords: *Griva basti, Bahiparimarjan chikitsa, Cervical spondylosis, Manyastambha, Nanatmaja vata vyadhi.*

INTRODUCTION:

Sedentary lifestyle is an imperative risk for musculoskeletal pain. According to the global burden of diseases, 2010, Neck pain is the 4th disease in terms of the highest number of years lived with disability (YLD) ¹. Therefore, neck pain is a gradually emerging health problem of today's world. The prevalence of neck pain has increased with the rise of desk jobs, prolonged screen time with poor posture, such as slouching or craning the neck forward to look at screens, can strain the muscles and ligaments in the neck and upper back.

Cervical spondylosis, a degenerative disorder of cervical spine is one the prime causes of chronic neck pain. There is also evidence that demographic characteristics, such as age and sex, can influence the prevalence and development of neck pain. Manyastambha has been enumerated among the 80 types of *Vataja Nanatmaja Vikara* ². According to Aruna Dutta, the commentator of *Astanga Hridaya* the meaning of the word 'Manya' is two Nadis that present on the lateral side of the neck. The commentator of *Bhavaprakash*, Amar Singh defined 'Manya' is the Sira of the posterior side of the neck ³ and the commentator of *Sushruta Samhita*, Dalhana defined 'Stambha' as *Nischalikarana*. According to Monier William 'Manya' means the back or the nape of the neck and 'Stambha' means stiffness, rigidity, or immovable ⁴. Thus Manyastambha is the clinical disease in which the back of the neck become stiff and the impaired movements of the neck are seen. Therefore, it can be correlated with *Cervical spondylosis*.

Samprapti of Manyastambha primarily involves vitiation of Vata dosha due to *Kaphavarana* or *Dhatu Kshaya* in the manya pradesh resulting in pain and stiffness of that area. At the initial stage of the disease, the *Kapha anubandhatwam* is acknowledged. In chronic stage, it becomes purely *Vatik* disorder, which is a degenerative condition in nature.

Griva Basti is a *Snigdha drava swedana* which is a form of *Bahiparimarjan chikitsa*. This therapy is evolved from *Netra tarpana*, *Shiro basti* mentioned by different acharyas and widely practiced in *Keraliyan Panchakarma*. *Snehana* mainly acts against the *Rukshata* caused by Vata and *Swedana* improves *Stambhana*.

AIMS AND OBJECTIVES

To study the probable mode of action of Griva basti in Manyastambha.

MATERIALS AND METHODS

THERAPY REVIEW

The term '*Basti*' used here refers the meaning "to reside" or "to retain". In 'Griva basti' the medicated hot oil is made to retain over the griva pradesh for a specific period of time. None of our classics have description about Griva basti as such but the references are taken from some of the classical procedures well described in samhitas. Because of the contextual importance these procedures are reviewed in brief.

Nabhi Poorana is a procedure mentioned by Bhavaprakash in Atisara chikitsa. Here a Alavala or cabin is made with the paste of amlaka around the navel and freshly prepared juice of raw ginger is kept over the nabhi⁵.

Netra Tarpana is a type of Netra Kriyakalpa mentioned by Sushruta for netra roga. It has more resemblance with the procedure of Griva Basti followed nowadays. In this procedure the lukewarm sneha is poured and retained over the eye socket inside a ring made with the help of a paste of masha for a certain period⁶.

Shiro Basti described by Sushruta is a procedure in which the sneha is made retain over the scalp with help of masha pishti and a charma patta (leather sheet) for a specified period of time⁷.

Observing the result of above procedures, the Physicians later developed a similar procedure over griva and named it as Griva basti. In this way Griva basti is evolved and widely practiced nowadays.

PROCEDURE OF GRIVA BASTI

Requirements

Prasarini oil (150-200) ml, Wheat flour, Water, Sauce pan, 2 Steel bowl, Gas stove, Lighter, Thermometer, 50 ml syringe, Towel.

Purva Karma

The patients is advised to take little light food and monitor vitals prior to therapy. The dough is prepared by mixing wheat flour with adequate quantity of water keeping the consistency of the dough neither too soft nor too hard. A ring is made by rolling and joining the two ends of the dough. Simultaneously, water is being boiled in a sauce pan over gas stove.

Pradhan Karma

The patient is asked to lie down in prone position. The circular ring prepared out of the dough is placed over the cervical region, particularly the area of degeneration elicited from X-ray or MRI and fixed properly by pressing its edges from outside and inside. The height and diameter of the circular ring is about 5-6cm and 12cm respectively. Around 150-200ml of medicated oil is taken in a steel bowl and place it over the boiling water for few seconds. The oil is heated by indirect heating method in this procedure. The hot oil is then poured directly inside the ring completely immersing the underlying skin and kept it for few minutes and the remaining oil is again given for heating. Initially lukewarm oil is used to reduce the chances of scald, but the intensity of heat is increased gradually once the tolerance to heat is established. As the temperature of the oil falls down, drain out the oil with syringe leaving a little amount of oil behind so not to expose the skin completely and replace it with hot oil. This same process is repeated for 30-45 mins everyday for 7-14 days consecutively.

Paschat Karma

The oil inside the ring is emptied by using a 50 ml syringe and then the circular ring is removed. Afterthat, light massage and Nadi swedana with Dashamoola Kwath and Saindhav Lavana is given over that area for 10 minutes. The patient is asked to wipe the oil or take bath after one hour.

Precautions:

- Patients having high blood pressure are advised to take therapy after taking of the antihypertensive medications.
- The dough should be cautiously prepared maintaining the consistency and carefully placed over the area to minimize the chances of leakage.

- While replacing oil should not be poured from a height, instead it should be glided over the oil which is already present inside the ring.
- While taking out the oil from the ring for heating, a little amount of oil is left behind so that the skin is not exposed as it can cause burn injuries from repeated pouring hot oil.
- The temperature of the oil should be maintained uniform throughout the procedure.

Advice

- Patient is advised to minimize the screen time of computer or mobile phone.
- Patient should adopt correct posture while sitting, standing and during work.
- Patient should avoid sleeping in uneven bed and high-rise pillow.

Indications of Grivabasti

- Cervical spondylosis
- Cervical spondylolisthesis
- Intervertebral disc prolapse (IVDP)
- Ankylosing spondylitis
- Frozen shoulder
- Trepezius muscular spasm

Benefits of Grivabasti:

- Slows down the process of degeneration of the cervical vertebra by rejuvenating them
- Improves blood circulation and nourishes muscles, bones & nerves of the cervical region
- Reduces pain and inflammation
- Relieves muscle spasm & stiffness
- Lubricates the joints and increases flexibility of joints
- Reduces the numbness caused by nerve compression

DISCUSSION

Probable Mechanism of Action of Griva basti

Ayurvedic view

When discussing “Dhamani vyakarana sharir,” Acharya Sushruta said the drug Bahiparimarjan chikitsa (sthanika procedures) will enter the body through *Tiryakgata dhamani* (Subcutaneous vessels) after undergoing paripakwa by *Bhrajaka pitta* present in twacha. The openings of these dhamanis are connected to Romakupa⁸. They act as a mediator for absorption and penetration of medicaments from the skin surface up to kha-vaigunya or sampraptisthana or mulasthan of vyadhi. The sneha in griva basti is also absorbed in similar way through these openings.

Snehana Karma⁹:

Sneha by virtue of its snigdha, guru, manda and pichilla guna reduces the rukshata and pacifies Vata dosha.

Snehana, vishyandan, mardawa and kleda karak functions of sneha nourishes the tissues and lubricates the joints and increases its flexibility.

Swedana Karma¹⁰:

- Stambhaghna: Swedana does ama pachana because of its ushna guna and acts as stambhaghna and reliefs stiffness.
- Gauravaghna: Swedana causes liquification(vilayan) of kapha, gauravagha and produces lightness in the body.
- Sweda karak: It softens accumulated mala and comes out of the body with sweat.
- Srota vishuddhi: It is due to ama pachan, kapha vilayan and sweda karak properties of swedana.

Q Modern View

Trans-dermal Drug Delivery ¹¹:

Skin is the most accessible and largest organ of the body with a surface area of 1.7 m², comprising 16% of the total body mass. Skin can be divided into three main regions:

1. Epidermis-the outer layer, whereas the stratum corneum is the most superficial layer of epidermis,
2. Dermis-the middle layer, and
3. Hypodermis-the inner layer.

The active components of the oil follow transdermal route for absorption into systemic circulation. The principle mechanism of percutaneous absorption is passive diffusion. There are 2 potential route of drug penetration across the intact skin are:-

1. Trans-epidermal route
2. Trans-appendageal route

1. The *transepidermal* pathway involves the passage of molecules through the stratum corneum, an architecturally diverse, multi-layered and multi-cellular barrier. It is of 2 types:

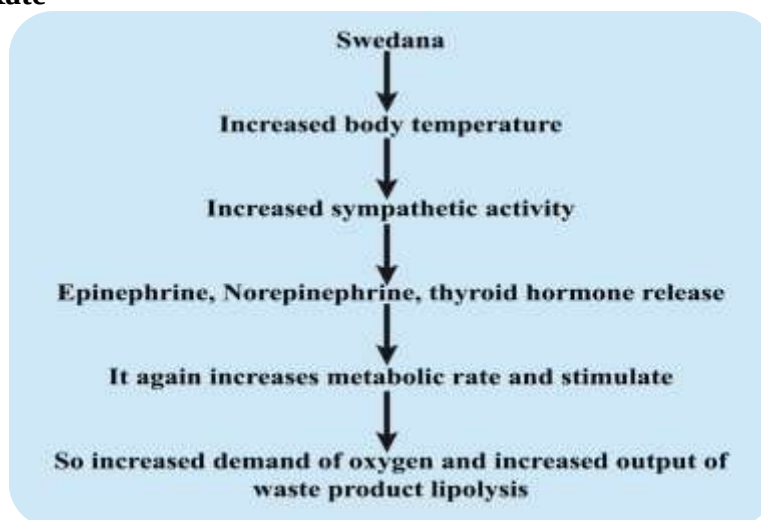
- The *Intra-cellular* route through corneocytes, terminally differentiated keratinocytes, allows the transport of hydrophilic or polar solutes.
- Transport via *Inter-cellular* spaces allow diffusion of lipophilic or non-polar solutes through the continuous lipid matrix.

2. The *transappendageal* route involves the passage of molecules through sweat glands and across the hair follicles. The skin surface contains an average of 200–250 sweat ducts and 10–70 hair follicles in each square centimeter. Water soluble substances are diffused through the skin appendages faster than that of outer layers of skin. Sweat glands and hair follicles act as shunt i.e. easy pathway for diffusion through the rate limiting stratum corneum.

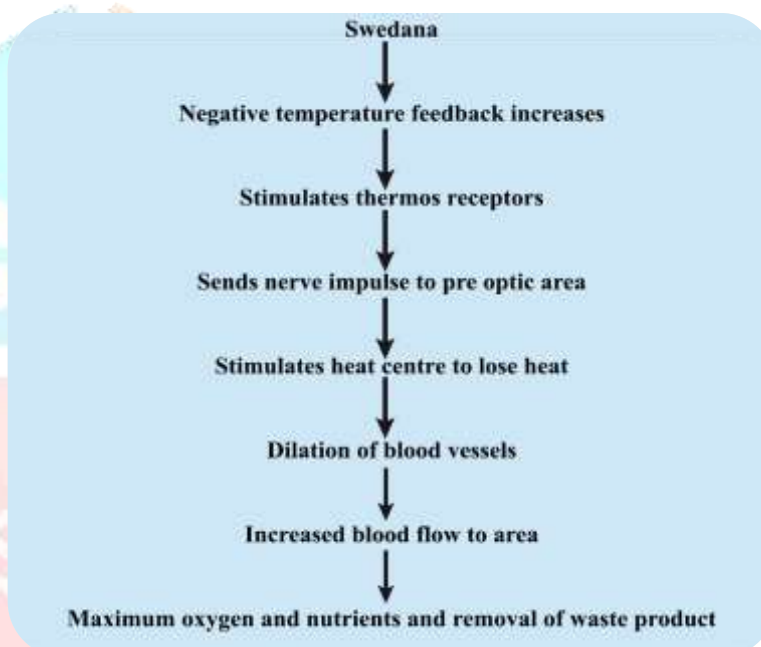


Mode of Action of Swedana ¹²

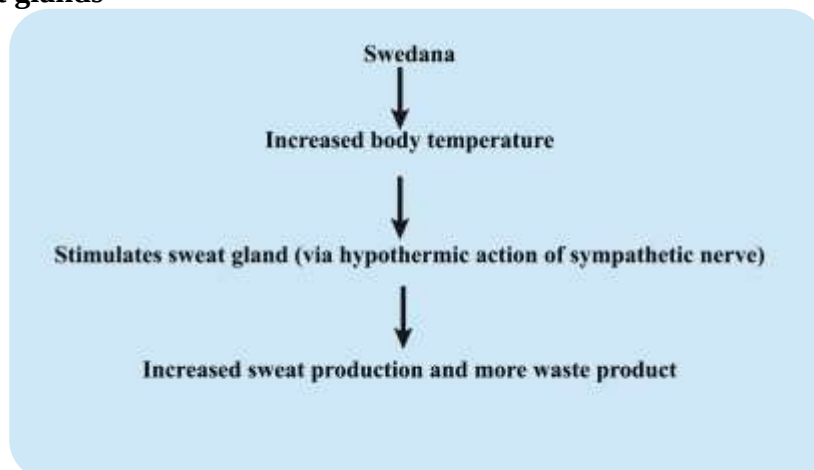
Increased Metabolic Rate



Vasodilation



Stimulation of Sweat glands



CONCLUSION

Vata is the predominant dosha involved in degenerative disorders. It is responsible for pain and stiffness, two predominant symptoms of Manyastambha. Grivabasti is highly effective in Manyastambha as Snigdha guna of oil rejuvenates tissues and slows down the process of degeneration. Swedana has ushna, tiksna, laghu and sara guna and acts as Stambhaghna, Gauravagha, Sitaghna, Srota vishuddhi karak. From modern point of view, the active contents of medicated oil passively diffuse the skin through transdermal route via Trans-epidermal or Trans-appendageal pathway for percutaneous absorption. The heat generated in swedana karma increases metabolic rate of the tissues, induces vasodilation and stimulates sweat glands. Swedana induces hyperthermia which improves local blood and lymphatic circulation and thereby improving local tissue metabolism. It reduces inflammation by modifying secretion of various inflammatory mediators, relaxes local musculature by physical effect of heat, increases the rate of transdermal drug delivery and thereby reduces pain.

REFERENCES

1. Sadegh Mazaheri-Tehrani et al.: Sedentary behavior and neck pain in adults: A systematic review and meta-analysis; <https://doi.org/10.1016/j.yjmed.2023.107711>
2. Charak Samhita, Part- 2 By Kashinath P. Sastri and Dr. Gourakhnath Chaturvedi; Chaukhambha Bharati Academy, Varanasi, Reprint 2020, Cha.Chi.28/43-45.
3. A Clinical Study of Snehana and Shaman in Manyastambha (Cervical Spondylosis) W.S.R to Geriatrics by Dr. Deepika D. Vyawahare, Dr. Snehalata S. Salunkhe, GJRA, Vol-9, ISSN-2277-8160.
4. Williams M. Monier (1995), Sanskrit English Dictionary Reprint; Motilal Banarasidas Publisher, Page-78.
5. Bhavaprakash of Sri Bhava Misra edited with Vidyotini Hindi Commentary by Pandit Sri Brahma Sankara Misra, Chaukhambha Sanskrit Sansthan, Varanasi, Reprint 2018, Bhavaprakash Madhyama Khanda, 8/40-41.
6. Sushruta Samhita, Part-2 by Dr. Ambikadatta Shastri; Chaukhambha Sanskrit Sansthan, Varanasi, Reprint 2018, Su.Ut. 18/6-8, 93p
7. Sushruta Samhita, Part-2 by Dr. Ambikadatta Shastri; Chaukhambha Sanskrit Sansthan, Varanasi, Reprint 2018, Su.Ut. 18/50-51, 98p
8. Sushruta Samhita, Part-1 by Dr. Ambikadatta Shastri; Chaukhambha Sanskrit Sansthan, Varanasi, Reprint 2018, Su.sha. 9/9, 94p
9. Principle and Practice of panchakarma by Dr. Vasant C. Patil; 4th Edition
10. Principle and Practice of panchakarma by Dr. Vasant C. Patil; 4th Edition
11. Ahlam Zaid Alkilani, et al.: Transdermal Drug Delivery: Innovative Pharmaceutical Developments Based on Disruption of the Barrier Properties of the stratum corneum; Pharmaceutics 2015, 7, 438-470; doi:10.3390/pharmaceutics7040438
12. Singh H, et al.: A Review Article on Samprapti-Vighatana of Manyastambha (Cervical Spondylosis) by Panchakarma Therapy; Journal of Natural & Ayurvedic Medicine; Nat Ayurvedic Med 2023, 7(1): 000383.