



REVIEW ARTICLE ON VIDDHAGNIKARMA IN KATIGRAHA

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ABSTRACT

Katigraha is commonest encountered problem. It is characterized by stiffness (katisthamba), pain (katishula) and impaired functioning of lumbar spine region due to vitiation of Vata in Katipradesha.^[1] Though it is not life threatening, this condition impedes daily activities. Kati itself is one of the seats of Vata Dosha and the root cause of disease is Vata.^[2] According to Ayurveda, it is produced because of involvement of Asthivaha Srotas. About 80% of the industrial population and 60% of the general population suffers from low back pain due to wrong posture. It can be co-related with Lumbar spondylosis, a senile degenerative disorder affecting lumbar vertebrae, discs & is characterized by severe low back ache, stiffness, numbness of lower limb.^[3] Sometimes pain is so severe that it affects the routine. Presently the condition is managed with analgesics NSAIDs, Steroids etc. These medications have adverse effects like gastric irritation, hyper acidity, peptic ulcer formation, GI bleeding, anemia, heart burn, osteoporosis and weight gain. The condition is managed in Ayurveda using therapies like, snehana, swedana, basti and treatment told for vatavyadhi which will provide pain relief for some period. Along with these measures, Sushruta emphasized that in case of tivraruja (severe pain) due to asthi, mamsa, tvak, sandhi, twachagata vata - Agnikarma should be performed.^[4] Time tested classical Agnikarma using panchaloha shalaka is done to mitigate the acute pain. Acupressure also provides pain relief in some patients. This study aims to present a comprehensive review of the efficacy of Viddhagnikarma, a treatment that combines acupuncture with agnikarma using monopolar cautery, specifically in patients with lumbar spondylosis (Katigraha).

KEYWORDS: Katigraha, vatavyadhi, katishula, katisthamba, agnikarma, viddhakarma, viddhagnikarma, lumbar spondylosis.

INTRODUCTION

“Katigraha” indicates a diseased condition of lower back associated with pain and stiff movements. It is one of the Vatavyadhis of lumbar region. Although this disease is not life-threatening, it significantly disrupts day to day activities. Kati itself is one of the seats of Vatadosha and the root cause of disease is aggravated by Vata. Degenerative changes in spine and disc due to aging is a major cause of Katigraha which involves Asthivaha shrotas. It is mainly associated with varying degrees of low back pain.^[5]

Modern science offers several remedies for pain relief, such as oral medications and injections, including NSAIDs and steroids. However, prolonged use of these medications can lead to adverse effects such as gastric mucosal irritation, hyperacidity, peptic ulcer disorders, and impaired liver and kidney function. Moreover, these treatments provide only temporary relief from pain.

In Ayurveda various treatment modalities are described for Vedana shamana in the context of vatavyadhi, which are effective, simple, safe and economic. These include Siravedha, Agnikarma, Basti chikitsa, Snehana, Swedana and many oral medications.

Agnikarma is mentioned as one of the most effective treatment modalities in reducing the pain by Sushrutacharya.

Agnikarma is one of the important para surgical treatments extensively practiced in Vata-Kapha predominant diseases. It is widely practiced for various forms of Musculoskeletal conditions like Osteoarthritis, Sciatica, IVDP, Spondylosis, Spondylolisthesis, Tennis elbow, Frozen Shoulder for pain management.^[6]

Agnikarma acts on a multi-factorial level in the body. Mainly it is indicated in the disease caused by vata and kapha because of its tikshna (quick action), ushna (Hotness), sookshma (subtle), vyavayi (Quick

spreading), vikasi (works without being metabolised) properties to remove srotorodha (obstruction in channels of body).^[7]

Viddhagnikarma, is a modified method of Agnikarma which is a combination of Viddha and Agnikarma, using monopolar cautery. This improvised technique maintains equal temperature throughout the procedure, is safe and cost effective. By this method endorphins are released and vatavarodha is cleared. Hence patients get relief from pain and stiffness. Therefore, the present study focuses on evaluating the effect of Viddhagnikarma in managing Katigraha.^[8]

Disease review^[9]

The word 'Katigraha' is originated from the union of two words 'Kati' and 'Graham' "Kati" is derived from the root "Kat in" meaning Sareera Avayava Vishesham. In "Amara Kosha" the word meaning of "Kati" is "Katau Vastra Varanau", the part of the body which is covered with clothes. "Graha" means holding. It is originated from Dhatu "Graha Upadane" - one which gives support.

Thus "Katigraha" indicate a diseased condition of the back associated with pain and stiff movements. In the classics it is mentioned under various terms like Katigraha, Trika Shula, Trika Graham, Prishthagraha and Shronibheda. "Trika" means "Trayanam Sandhayah," union of three parts or union of three Avayava in any part of human body. As per this the shoulder and neck regions can be considered as "Trikam". In Astanga Hridaya, "Pakvashayagata Vata" Lakshanas are explained in which the word "Trika" is mentioned. It shows that, Trika, Prishthta and Kati are three different parts of the body. In 'Nanatmaja Vyadhis' Katigraha, Prista Graham and Sronibheda are mentioned as separate diseases, depending on the region where pain is felt.

Katigraha is a type of Vatavyadhi that affects the lumbar region. Even though this disease is not life threatening but it hampers the daily activity. It is described as a separate disease in the classical text Gadanigraha and Acharya Sharangdhara considered it as a Nanatmaja Vatavyadhi.

Kati itself is one of the seats of Vatadosha and the root cause of disease is aggravated by Vata. Katigraha is common with aging and is considered to be associated with the low back pain and disability. It is an important clinical, social and public health problem affecting the worldwide population. Aging is well known risk factor of Katigraha as degenerative changes in the spine and disc are one of the major causes of Katigraha.

SAMPRAPTI GHATAKA

Dosha	Vata, kapha
Dushya	Asthi, Mamsa
Shrotas	Asthivaha, Mamsavaha
Shrotodusthi	Sanga
Rogamarga	Madhyama

Adhithana	katipradesha
Udbhava sthana	pakwashaya
Vyktasthana	Kati, sphik

Treatment review

In this condition, pain and stiffness are found at Katipradesha, therefore Sthanik Snehana and Swedana are very effective and provide quick result. Bahya Snehana and Swedana helps in reducing the pain, stiffness of the lumbar spine and increases the local blood circulation. Basti is said to be best treatment for all Vatika disorders. It is highly acclaimed by Acharya Charak and described as Ardhachikitsa.

When all these treatments fail to cure Katigraha, Agnikarma is regarded as the final and most effective option. According to Sushruta Acharya, in cases of *tivraruja* (severe pain) caused by conditions involving the bones (*asthi*), muscles (*mamsa*), skin (*tvak*), joints (*sandhi*), or *twakagata vata*, Agnikarma is considered as the ultimate treatment modality.

Agnikarma works on a multifaceted level within the body and is particularly effective for diseases caused by *vata* and *kapha*. This is due to its properties of being *tikshna* (quick-acting), *ushna* (hot), *sookshma* (subtle), *vyavayi* (rapidly spreading), and *vikashi* (acting without prior metabolism), which help in removing *srotorodha* (obstruction in the body's channels).

Viddhagnikarma, an advanced technique, integrates the principles of *viddha* and Agnikarma. This modified approach utilizes monopolar cautery, hence this study is undertaken to see the effectiveness in the treatment of Katigraha.

Review of procedure

AGNIKARMA^[10]

Agnikarma is important para surgical treatment extensively practiced in Vata-Kapha predominant conditions. It is simple, day care, less invasive and most importantly highly effective procedure. Specifically, Agnikarma is practiced for various forms of Musculoskeletal conditions like Osteoarthritis, Sciatica, IVDP, Spondylosis, Spondylolisthesis, Tennis elbow and Frozen Shoulder.

The basic principle on which Agnikarma works is - transfer of thermal energy to bring changes in disease entity using tissue specific devices. Agnikarma provides complete relief without recurrence. Based on the specific heat retention and transmission capacity of different materials, Ayurveda advocates different materials like pippali (piper longum), ajasakrut (goats excreta), godantha (cow's tooth), shara (arrow), shalaka (metal Rods), kshoudra (honey), guda (jaggery), sneha (oil/fat) for cauterizing specific body parts like skin, muscle, blood vessels, ligaments etc.

Agnikarma acts on a multi-factorial level in the body. Mainly it is indicated in the disease caused by vata and kapha because of its tikshna (quick action), ushna (Hotness), sookshma (subtle), vyavayi (Quick spreading), vikashi (works without being metabolized) properties to remove srotorodha (obstruction in channels of body).

Suitable time for agnikarma

Agnikarma can be carried out during any season, except sarat (Autumn) and greeshma (summer). Agnikarma can be carried out- in these seasons as well, in diseases of emergency, by creating a suitable environment opposite to the characteristics of greeshma and sarat ritu.

Contra indication of agnikarma

According to Sushruta, Agni Karma should not be done in following conditions; Pitta Prakriti, Bhinna Kostha, Durbala, Vriddha,, Antah Shonita Anuddhrata Shalya, Bala, Bhiru, person afflicted with a large number of Vrana and person who is forbidden for Swedana

VIDDHAGNIKARMA^[11]

It is combination of both viddha and agnikarma procedure. 'Viddha' or 'Vedhana' is a Sanskrit word meaning 'to pierce or penetrate something'. It is one among the astha vidha shastra karma, which helps to drain the collected fluid or vitiated material inside the body by piercing or puncturing with needle. In Sushruta Samhita, Suchi is used for Vyadhana and Seevana karma.

For Viddha Karma sterilized needles are always preferred. Needle no. 26 (0.45 breath 13 mm length) is widely used for Vedhana karma.

Acupuncture

Acupuncture is a form of traditional Chinese treatment that involves inserting thin needles into specific points on the body and leaving it for a specific time period which is used to relieve painful conditions.

Viddhagnikarma is getting popular now a days for its efficacy in various painful conditions. It is amalgamation of viddha and Agnikarma. Similar to Agnikarma, initially most tender points are pierced with hypodermic needles later heat is transferred through the needle with the help of cautery machine.

There are no direct references available for viddhagnikarma, but following are the concepts mentioned in agnikarma chapters that can be adopted in viddhagnikarma:

1. While explaining indication and site of agnikarma, sushruta mentioned that agnikarma can be done at ugraraja sthanas. In viddhagnikarma same method is adopted. It is done at most tender points
2. Different dahanopakarana are used accordingly to achieve twak and mamsa dahana. Acharya vagbhata in ashtanga sangraha indicated suchi as

dahanopakarana for mamsa dahana to treat diseases related to sira, snayu, asthi, sandhi. In viddhagnikarma, suchi in the form of hypodermic needles are pierced and agnikarma is performed.

3. In vangasena Samhita agnikarma with suchi is advised in case of vatakanthaka. In Chakradatta and baishajya ratnavali it is recommended to do agnikarma with suchi in case of vatakanthaka.
4. Since the Suchi has low heat retention capacity, it requires repeated manual heating during the procedure. This limitation can be addressed by using a monopolar cautery machine.
5. chakradattha in management of vatakanthaka mentioned about suchikruta agnikarma over heel region, same method is being used in treatment of katigraha, vatakanthaka, avabahuka, janusandhigatavata etc musculoskeletal disorders in modified form of agnikarma as viddhagnikarma by using monopolar cautery machine. With this approach, it is possible to maintain consistent heat transmission throughout the procedure, eliminating the risk of heat loss during the process, as often encountered in Agnikarma performed with Panchadhatu Shalaka.
6. More over by piercing hollow needle, endorphin release will occur which is extra added effect than panchadhatu shalaka agnikarma (classical agnikarma).

METHODOLOGY

Materials

- Needle no 26 Q.S
- Spirit
- Goghrita
- Cautery machine
- Gauze piece
- Candle
- Skin marker

Contraindication

1. Agni/swedana karma anarha patient
2. local skin inflammation or wound
3. patient having pacemaker
4. Subjects having bleeding disorders, HIV, HBSAG and malignant conditions
5. Subjects associated with other systemic disorder like Hyperparathyroidism, Hyper tension, Uncontrolled Diabetes mellitus

Methods

PURVA KARMA

- The subject will be explained about the procedure.
- Advised to take *Snigdha* and *Pichhila Aahara* prior to the procedure.
- Preparation of part- will be cleansed with surgical spirit and dried with sterilized gauze piece.
- 8 to 10 most-tender points will be marked with skin marker.

PRADHANA KARMA

- The subject will be made to lie down comfortably in the prone position and the Neutral plate of the monopolar cautery machine is kept below the patient's thighs. in order to complete the electric circuit
- The marked tender points will be pierced with the hypodermic needle (no 26). to the level of hypodermis (0.5cm)
- The heat through the cautery pencil via monopolar cautery machine is passed to the needle by touching the shaft, for one to two seconds (intensity ranging from 0.5 to 4mhz, varies according to patient's threshold capacity of heat tolerance)
- This procedure is done to all the pierced needles. And the procedure is repeated for a total of three cycles with a gap of 5 minutes between the cycles which completes one sitting of the treatment.
- If by needle piercing, blood comes out then viddhagnikarma should not be performed at the site and needle is to be removed and applied to another site.
- Total 3 sittings of treatment will be done at 7 days interval each.

PASCHAT KARMA

- Later all the needles are carefully removed and the bleeding points if any are held with the gentle pressure so that the bleeding is stopped. After the haemostasis is achieved, *Go-Ghrita* is applied over the area by using sterilized gauze piece.
- Patients will be allowed to go home with advice not to cover the area of *Agnikarma* with cloth or bandage. He is advised not to use water over that part for at least 24 hours.

DISCUSSION**Probable mode of action of viddhagnikama¹²**

1. Pain is mainly due to vataavarodha, by piercing the needle in the affected part, avarodha is removed.
2. Local application of specific amount of heat results in vasodilatation and increases local blood flow which flushes away the metabolic wastes hence reduced pain
3. By piercing needle it releases endorphins, it inhibits the p substances reaching the CNS, hence reduces the pain, reduces stress and improve one's sense of well being
4. Agni is having ushna and teekshna guna, which is having shamana effect to both vata and kapha, katigraha is mainly vata and kapha predominant disease, that's why viddhagnikarma gives relief in this condition.
5. Therapeutic heat increases the dhatwagni, so metabolism of dhatu becomes proper and digests amadosha from affected site and promotes proper nutrition from purva dhatu. In this way asthi and majja

dhatu becomes more stable, thus results in relief from all symptoms of katigraha.

6. Heat may stimulate lateral spinothalamic tract which leads to stimulation of descending pain inhibitory fibres which release of endogenous opoid peptid which bind with opoid receptors at substantia gelatinosa rolanda which inhibit of release of P- substance and blockage of transmission pain sensation occur.

7. Gate control therapy: Pain sensations are transferred by two types of fibers. "A" fibres (stimulated by heat, cold and touch) and "C" fibers (stimulated by pain). Here the gate mechanism is blocked by stimuli from A fibers, activation of other types of nerve fibers can modify or block the sensation of pain, so the pain will not be felt.

8. Increased Metabolism: This is in accordance with Van't Hoff's statement that any chemical change capable of being accelerated by heat is accelerated by a rise in temperature. Consequently, heating of tissues accelerates the chemical changes i.e. metabolism. As a result of the increased metabolism there is an increased demand for oxygen and nutrients and an increased output of waste products, including metabolites.

9. Effect of heating on nerves: Heat appears to produce definite sedative effects. There is evidence that any sensory excitation reaching the brain simultaneously with a pain excitation results in the pain impulse being more or less attenuated. Pain receptors of skin and motor end plate stimulated at 45°C pathway for pain and thermal signals run parallel and ends into same area but only stronger one can felt. Therefore, complete exclusion of pain impulse by heat occurs.

10. Effect on muscular system: Rise in temperature induces muscle relaxation and increases the efficiency of muscle action, as the increased blood supply ensures the optimum conditions for muscle contraction.

11. Effect on sweat glands: There is reflex stimulation of the sweat glands in the area exposed to the heat, resulting from the effect of the heat on the sensory nerve endings. As the heated blood circulates throughout the body it affects the centres concerned with regulation of temperature, and there is increased activity of the sweat glands throughout the body. When generalized sweating occurs there is increased elimination of waste products.

CONCLUSION

According to Acharya Sushruta, Agnikarma is classified as one of the Anushastrakarmas and is also referred to as Apunarbhava Chikitsa. It is primarily indicated for musculoskeletal disorders or conditions involving severe pain (Atyugraruja) in the twak (skin), mamsa (muscles), sandhi (joints), asthi (bones), sira (vessels), and snayu (ligaments). This makes it particularly effective in relieving Katigraha, as the condition is predominantly a

Vata-Kapha Pradhana Vyadhi characterized by pain (ruja) and stiffness (sthamba) in the lumbar region.

The *ushna* (heat), *teekshna* (intensity), and *vikasi* (spreading) properties of *agni* significantly alleviate *sthambha* (stiffness) and *ruja* (pain).

Apart from Agnikarma, treatments such as *snehana*, *swedana*, *basti*, *upanaha*, and *alepa* are recommended by other Acharyas. However, when these treatment modalities fail to provide relief, Agnikarma is considered the most effective option, as stated by Sushruta Acharya.

Viddha Karma, one of the Ashtavidha Shastra Karmas, alleviates Vatavarodha by removing dushita rakta and vitiated Vata and other Doshas from the body. Viddhagnikarma is a modified technique that combines Viddha Karma and Agnikarma. This method ensures consistent temperature throughout the procedure, making it safe, time-efficient, and cost-effective. Additionally, it stimulates the release of endorphins, providing relief from pain and stiffness.



Transferring the heat through cautery pin



Application of Ghrita after removing needle



Marking the tender points



Materials required



Piercing the needle at tender point



Cautery Machine

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