

International Research Journal of Ayurveda & Yoga

An International Peer Reviewed Journal for Ayurveda & Yoga



Role Of Agnikarma In Pain Management- A Review

Dr. Rohitash Gurjar¹, Prof. Sanjeev Sharma², Prof. P. Hemantha Kumar³, Dr. Narinder Singh⁴

ICV-70.44- ISRA-1.318

VOLUME 4 ISSUE 5

1. M.S. (Ay.)-Scholar NIA Deemed to be University Jaipur
2. Guide & Vice-Chancellor Nation Institute Of Ayurveda, Deemed To Be University Jaipur
3. Head, P.G. Department Of Shalya Tantra NIA Deemed to be University Jaipur
4. Co- Guide & Assistant Prof. Of P.G. Dept. Of Shalya Tantra NIA Deemed to be University Jaipur

Corresponding Author:- Dr. Rohitash Gurjar, M.S. (Ay.)-Scholar NIA Deemed to be University Jaipur,
Email, ID- rohitgurjar080@gmail.com

Article received on 11th April 2021

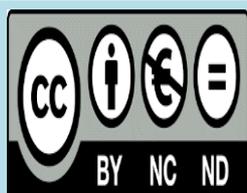
Article Accepted 22nd May 2021

Article published 31st May 2021

ABSTRACT: -

Acharya Sushruta who is worshipped as the Father of surgery has described various modalities relating to both surgical and para surgical procedures. *Agnikarma* (Thermal Cautery), an ancient para surgical modality, *Acharya Sushruta* elaborated the concept of considering the feasibility and effectiveness of the use of *Agni karma* in numerous diseases. Which are still applicable in the present era. *Agni karma* (Thermal Cautery) has given a special place in surgery by *Sushruta* and it is believed that diseases treated by *Agni karma* (Thermal Cautery) never reoccur. Pain has been given utmost importance even in Ayurveda, Despite recent advances in pain management including anesthesia, its' management remains challenging. This article deals with the facts about pain, its management through the conceptual study of vitiation of *Vata Dosha* responsible for pain, with therapeutic procedure *Agni krama* utilized in Ayurveda with modern outlook. The proposed hypothesis of increase and decrease the bio signaling pathway leading to *Dhatukshaya* (depletion of body tissues) and *Margavrodhjanya Vata Prakopa* (obstructive *vata prakopa*) could pave the way in understanding the vitiation of *Vata Dosha* leading to inflammatory pathology. This article attempts to touch maximum aspect of pain management through *Agni karma* (Thermal Cautery).

Keywords: -Ayurveda, Pain, Shool, Agnikarma.



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How to cite this article: Dr. Rohitash Gurjar, Prof. Sanjeev Sharma, Prof. P. Hemantha Kumar, Dr. Narinder Singh "Role Of *Agnikarma* In Pain Management- A Review" IRJAY, May: 2021, Vol-4, Issue-5;224-228 ; DOI: <https://doi.org/10.47223/IRJAY.2021.4528>

INTRODUCTION

The International Association for the Study of Pain defines pain as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage¹. Pain can be explained in terms of a symptom underlying disease or complication of the other disease. *Sushruta Samhita* explains Pain as a separate entity termed as *Shool*². *Shalya Tantra* or surgery is among the eight branches of *Ayurveda*³. *Acharya Sushruta* has mentioned different methods of management of a disease Such as *Bheshaja Karma* (medicines), *Kshara Karma* (caustic therapy), *Agni karma* (Thermal Cautery), and *Shastra Karma* (surgical procedures)⁴. *Agnikarma* (Thermal Cautery) means the application of *agni* directly and indirectly with help of different materials to relieve the patient from disease. *Sushruta Agnikarma* (Thermal Cautery) is classification as "Agni Krita Karma" as the karma or action carried out by *Agni*⁵. *Agnikarma* has been mentioned in the context of *Bhagandara* (*fistula in ano*), *Arsha* (*piles*), *Arbuda* (*tumour*), *Sira* (*vein*), *Snayu* (*ligament*), *Sandhi* (*joint*), *Vata Vikaras*. According to *Ayurveda* vitiation of *Vata Dosha* is the leading cause of pain (*Vedana*)⁶.

LITERATURE REVIEW

CONCEPT OF PAIN -

1. According to Ayurveda: –According to *Ayurveda* 'Shool' a condition with a state of discomfort to body and mind. In *Ayurvedic* texts, various terms such as *Ruk*, *Ruja*, *Vedana*,

and *Shool* are commonly used for pain. Definition of *Shool* as an experience similar to driving a nail into the body of the person. It has been further elaborated that out of *Tridoshas*, vitiated 'Vata' is the main causative factor responsible for all painful condition⁷. This vitiation of *Vata* occurs in two ways, viz. *Dhatukshya Janya Vata Prakop* (*increased catabolism*) and *Margavarodh Janya Vata prakop* (*channel obstruction*). Furthermore, the *Ruksha* (Dryness) *Shita* (Cold), and *Chala* (Vibrations) *Gunas* (characters) of *Vata* are mainly involved in the manifestation of pain⁸.

2. According to Modern: -Classification of Pain: Pain can be classified as per duration (Acute, Subacute & Chronic); Nociceptive Pain, Neuropathic Pain, Psychogenic Pain, Breakthrough Pain (ex., Oncological pain), Pain asymbolia (ex. Diabetic Neuropathy). Nociceptive type of Pain is caused when noxious stimuli are perceived by the free nerve endings of the afferent sensory nerve axon. From an anatomical point of view, Nociceptive Pain can be classified as per the axons involved in the perception of pain as Fast pain (mediated by A δ fibre) which is sharp and slow pain (mediated by C fiber) which is diffuse - dull aching. From a location point of view, Nociceptive Pain is classified as Somatic (superficial & deep) and Visceral. From a receptor point of view, Nociceptive Pain is classified as Thermal (transducer such as TRPV1), Mechanical (receptors responding to excess pressure), Chemical (receptors responding to chemicals like capsaicin), Silent

(receptors responding only when inflammation sets in), and Polymodal (many neurons performing single function)⁹.

Pain Sensitization Mechanism: The Ascending Spinothalamic tract (sensory afferent neuron system) pathway helps us to understand the conduction mechanism of Pain (lateral tract- A δ & C Fibres), Pressure (ventral tract – Ruffini endings), Temperature (lateral tract). Similarly, the Gate Control Theory of central Pain Modulation and Descending modulation of Pain (Efferent Analgesic system) is an alternative mechanism of understanding pain sensitization mechanism. Moreover, the role of noxious stimulus altering the conformation of proteins (G-Protein Coupled Receptors) in the cell membrane of A δ and C fibers and the role of inflammatory pain mediators such as Serotonin (5 HT), Bradykinin, Leukotrienes, Prostaglandins, etc. helps in understanding the sensitization mechanism of pain in depth¹⁰.

Concept Of Agni Karma -

Agni and Karma. Agni, the masculine word derived from the root “*Agigatau Agyati Agnayamna Prapyanti*”. i. e. it gives the rebirth, is utilized to cure and prevent the diseases. *Agni karma* means procedure done with fire¹¹.

Agni karma Kala – Agni karma can be done in all seasons except *Sharad (autumn)* and *Grishma* (summer) due to the increase in Pitta, which is generated out of the excessive hot climate. Dalhana opines, in an emergency, even in any season it can be done with precautions like covering the site with moist clothes, having cold foods, and smearing cold pastes over the body has to be adopted, so that the Pitta vitiation can be countered by the cold applications¹².

Indications - Disorders involving Twak, Mamsa, Sira, Sanayu, Asthi, and Sandhi, Vataja dominant area especially in Utchhrita, Kathin and Supta Mamsa (where muscles are

functioning inadequately)¹².

Dahanopkarana¹³

Types of *Dahanupkarna (heat therapy)* -

1. Plant origin – *Pippli, yashtimadhu, Haridra, Guda, Ghrita*.
2. Animal origin – *Ajashakrita, Godanta, Madhochhishta*.
3. Metallic and Other – *Panchdhatu Shalaka (Tamra 40%, Loha 30%, yasada 10%, Rajat 10% Vanga 10 %) and individuals like Tamra shalaka*.

Application of Dahanupakarna (heat therapy)

Skin diseases – *Pippli (piper longum), Ajashakrita (goat's excreta), Godanta (cow's teeth), Shara (arrow), Shalaka (metal rods)*
Skeletomuscular diseases – *Jambovaushta, pachdhatu shalaka*
Vascular and joints disease – *Madhu, Guda, Ghrita, Tail*.

Dahan Prakara¹⁴ :

1. According to Dravyas

Snigdha Dahan (slimy) – Madhu (honey), Guda(jaggery), Ghrita(ghee), Tail 9oil)etc. Ruksha Dahan(dry) – Pippli (piper longum), Ajashakrita (goat's excreta), Godanta (cow's teeth), Shara (arrow), Shalaka (metal rods) etc.

2. According to the site –

A. Local – Dahan at Effected site like *Vichrachika(Eczema), Kadra(corn), Arash(piles), Bhagandara(fistula), etc.*

B. Other site of disease – Like *Visuapachi, Gridhrasi (Sciatica)*.

3. According to akriti (shape)-

- A. *Valaya* – Circular
- B. *Bindu* – Dot like shape
- C. *Vilekha* – Making different types of lines.
- D. *Pratisarana* – Rubbing of heated Shalaka(rods)

Procedure –

Pre-operative procedure - First proper assessment of the patient should be done. All

necessarily required instruments like *pippli*, *Ghrita*, *Tail*, *Plota*, *Pichu Shalaka* Agni kept ready. Patient pichhila anna should be taken before procedure exception labor, urolithiasis, fistula in ano, hemorrhoids, abdominal diseases, and oral cavity disorders.

Operative Procedure - Minutely examine the site where *Dahan* (cauterization) has to be performed. After proper cleaning of the site, Agni karma was performed at the site until *Samyak dagha lakshan* appears.

Post-Operative Procedure - *Grita and Madhu* should be applied on the *Agni Karma* site for wound healing and a proper diet should be taken.

Samyak Lakshanas¹⁵ –

1. **Tawak Dagdh Samyag Lakshans** – creaking sound produced bad odor and contraction of skin are the sign of *Samyak Twak Dagdh*.

2. **Samyag mamsa Dagdh** – color like a pigeon – (Ashy, Dark, Gray) mild swelling mild pain and dry contracted wound are signs *Samyag mamsa Dagdh*.

3. **Samyag Sira Sinayu Dagdh** – Black coloration elevation of site stoppage of discharge are signs of *Samyag Sira Sinayu Dagdh*.

4. **Samyag Asthi Sandhi Dagdh**- Dryness dark red coloration roughness and stability of part are signs *Samyag Asthi Sandhi Dagdh*.

Methodology: - *Ayurvedic* text, modern textbooks, Internet, Review Articles, etc.

DISCUSSION

Agnikarma (Thermal Therapy) is one of the most effective para surgical procedures mentioned for the management of pain which is done with the help of *Dahan Upkarna*. This unique procedure helps in relieving pain in various painful conditions.

Mode of action of Agnikarma

Agni possesses *Ushna* (hot), *Tikshna*(sharp), *Sukshma*, and *Aashukari Gunas* (fast in action). Physical heat from red hot *upkarnas* is transferred as therapeutic heat to *Twakdhatu* (skin) by producing *Samyak Dagdha Vrana*.

From *Twakdhatu* following are the different postulates on this therapeutic heat that may act in

subsiding the diseases.

- First, due to *Ushna* (hot), *Tikshna*(sharp), *Sukshma*, and *Aashukari Gunas* (fast in action). it may remove the *Srotavarodha*, (obstruction in channels) pacifies the vitiated *Vata and Kapha Dosha*, and maintains their equilibrium.

- Secondly, therapeutic heat may increase the *Dhatwagni*, so the metabolism of *Dhatu* becomes proper and digests the *Amadosha* from the affected site and promotes proper nutrition from *Purva Dhatu*.

- Third the heat may increase the *Rasa Rakta Samvahana* (blood circulation) to the affected site. The excess blood circulation to the affected part flushes away the pain-producing substances and the patient gets relief from symptoms. Further, it can be endorsed that the therapeutic heat goes to the deeper tissue like *Mamsa Dhatu* (muscles) and neutralizes the *Sheeta Guna* (cold) of *Vata and Kapha Dosha* and in this way vitiated *Doshas* come to the phase of equilibrium and patients get relief from the pain.¹⁶

Possible Hypothesis -

1. Temperature And Pressure Hypothesis

The mechanism of action of *Agnikarma* can be understood with the help of the afferent spinothalamic tract. As stated earlier, the ascending neurons are the pathway for conduction of Pain (lateral spinothalamic tract- Aδ & C Fibres), Pressure (ventral spinothalamic tract – Ruffini endings), Temperature (lateral spinothalamic tract). When perception of pressure and temperature factor is increased,

pain perception is reduced by Stimulation of Lateral Spinothalamic Tract (SST) Heat stimulation of descending pain inhibitory fibers Release of endogenous opioid peptide which bind (DPI) with opioid receptors at substantial gelatinosa Inhibition of release of P-substance (Pre-synaptic rolandic Blockade of transmission of pain sensation inhibition) which helps us to understand the role of *Agnikarma* in relief of pain.

2. Counter Irritation Hypothesis

Moreover, another hypothesis suggests that the released heat could have irritated the superficial sensory nerve endings thereby relieving pain from the site. concept of 'counter irritation'. Pain receptors of skin and motor endplate get stimulated at 45O C. Pathway for pain and thermal signals run parallel and end up at same area, but only stronger one can be felt. Therefore complete exclusion of pain impulse by heat occurs.

3. **Vasodilatation Hypothesis-** It has also been suggested that pain may be possibly caused as a result of the accumulation of metabolic waste products in the tissues, and an increased flow of blood (vasodilatation due to heat) in the region is the possible mechanism that is responsible to remove these substances and relieve pain. Another possibility is that the pain releasing mechanism is associated with muscle relaxation.

CONCLUSION

Agnikarma is one of the specific treatments indicated in the case of *Vataj Vikaras* (different types of pain). *Dahana* or cauterization is done in the affected part till the *Samyak Lakshana* is obtained. Till date only Symptomatic Treatments like Analgesics, Anti-inflammatory drugs (which have various side-effects especially prolong use effect the Kidneys) and exercises, etc. are available for many diseases like Spondylitis, Sciatica, Joint Pain, Migraine,

Headaches, Warts, etc. but none of these modalities are providing satisfactory result. Long term use of these drugs is also not free from adverse effects. *Agnikarma* Therapy –A Para Surgical Modality is a good therapy for Acute and Chronic Pain Management. *Agnikarma* have imminent and long-lasting results. In these procedures heating the tissue results in increased metabolic activity, increased blood flow and stimulation of neural receptors in the skin or tissue, and many other indirect effects. The *Agnikarma* is most efficient in the management of pain.

Acknowledgment: Nil.

Financial Support: Nil.

Conflict of Interest: Nil

REFERENCES

1. https://en.wikipedia.org/wiki/International_Association_for_the_Study_of_Pain [Last accessed on 12/06/2020]
2. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' part-2 Chaukhambha Sankrit Sansthan 2017.P 346,42;81
3. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017.P 5,1;7
4. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017.Chikitsa Sathan .P 46,6;3.
5. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017.Sutra Sathan .P 51.

6. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017.Sutra Sathan .P 51.12;7,10
7. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-2 Chaukhambha Sankrit Sansthan 2017.P 344,42;69
8. Acharya Vidyadhar Shukla, Prof. Ravi Dutt Tripathi Caraka, Vatvyadhichi Ki Tsaadhyay. In: Vaidyamanorama Hindi Commentary, Caraka Samhita Uttarardha, 2nd Ed. Varanasi : Chaukhamba Sanskrit Pratishthan; 2007. P. 699, 28:59
9. <https://en.wikipedia.org/wiki/Pain> [Last Accessed On 13/06/2020]
10. <https://www.researchgate.net/publication/331672467>
11. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017.Sutra Sathan.P 50.12;3
12. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017.Sutra Sathan.P 51.12;5
13. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017 .Sutra Sathan .P 52.12;4
14. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017.Sutra Sathan .P 52.12;11
15. Suden, A. (2020). Agni Karma To Manage Sandhigata Vata W.S.R. To Cervical Spondylosis : A Review. International Research Journal Of Ayurveda & Yoga, 3(7), 216-241.
16. Kaviraj Dr. Ambika-Dutt-Shastri Sushruta Samhita Hindi Commentary 'Ayurveda-Tattva-Sandipika' Part-1 Chaukhambha Sankrit Sansthan 2017.Sutra Sathan.P 52.12;13