



A CONCEPTUAL REVIEW ON AGNIKARMA W S R THERAPEUTIC CAUTERIZATION

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ABSTRACT

Ayurveda is the oldest and supreme science of medicine which deals about promotion of health and curing of diseases. *Agnikarma* is one among them which is explained under the context of *Anushastra*. Our *Acharyas* has explained about *Agnikarma*, its superiority, indications, contraindications and detailed description about *Agnikarma* Procedure. It is one of the methods of therapeutic Cauterization done using special tools at specific sites mentioned for specific diseases. *Agnikarma* is one of the procedures which relieve the pain very quickly. In this study a brief focus has been laid upon how this procedure helps in management of chronic diseases with pain as the chief presenting complaint. It has a special place in surgery because the disease will never reoccur if treated by this modality of treatment. In modern science, it is termed as Therapeutic Cauterization. This Review article helps us to understand about *Agnikarma*.

Key Words: *Ayurveda*, Cauterization, Para-surgical procedures.

INTRODUCTION: *Agnikarma* means procedure done with fire and it has preventive, curative and hemostatic properties. *Agnikarma* is superior to all parasurgical procedures because the disease treated by Therapeutic burning will not reoccur again and those diseases which are incurable by the use of medicine, sharp instruments and alkalies will be cured by *Agnikarma*.¹ in *Charakasamhita*, *Acharya Charaka* explained *Agnikarma* in *Dvivraniya Chikitsa Adhyaya* under 36 *upakramas* of *vra*.² *Acharya sushruta* has dedicated complete chapter on *Agnikarma* in *Sutrastana*.³ *Acharya Vagbhata* has given a detailed description of *Agnikarma* in 30th chapter of *Sutrastana*.⁴ *Acharya Chakradatta* has explained specially regarding *Suchi Agnikarma*.⁵ In advanced technologies like Cauterization, laser therapy, Radiation therapy the very basic Principles of *Agnikarma* can be inferred to have been

adopted. Nowadays sterilization by heat process can be interpreted with *Agni*.

All the advanced therapeutical techniques by using *Agni* in different forms and in different methods, has been already told and practiced in our Ancient classics. For example the thermal cautery (unipolar or bipolar) used in surgical procedures like excision of corn, skin tags, warts, moles, cysts, etc.. Adopts the usage of high temperature at the point of contact, for getting the desired action of excision. The same principle has been practiced under the context of *Agnikarma* by heating the materials like *Panchaloha Shalaka* [*Tamra*(Copper)-40%, *Loha*(Iron)-30%, *Yashada*(Zinc)-10%, *Rajata*(Silver)-10% and *Vanga*(Tin)-10%]⁶ till it becomes red hot. It takes 5minute to become red hot, Temperature attained at red hot was 200^oc and temperature falls 10^oc in every 5 seconds. Time taken to attain room temperature was 1 minute 40seconds.⁷ and

was used for well as for *Raktasthambana* (haemostasis).
Chedana(Excision),*Bhedana*(incision) as

Fig no; 1 Heating *Agnikarma shalaka*



In modern era patients require immediate relief from pain and in this regard, *Agnikarma* is one of the best viable and economical therapeutic procedures which can be done on daycare basis. The usage of *Agnikarma* in managing disease such as Sciatica, arthritis, tennis elbow, calcaneal spur, Spondylitis , to name a few, has given excellent results and improvement in patients overall condition.⁶

MATERIALS AND METHODS

For the Present review study, detailed literary study is performed; the detailed contents and references are analyzed from Available classical texts such as *Charakasamhita*, *Sushrutasamhita*, *Ashtangahridaya* and *Chakradatta*.

Tools used for *Agnikarma*

Various tools are mentioned in our classics for *Agnikarma* procedure. These tools are known as *Dahanopakaranas*.







Table no 1:- A List of *Dahanopakaranas* .

	<i>Sushruta</i>	<i>Vagbhata</i>
<i>Twakdagdha</i> (burn reaching upto subcutaneous level)	<i>Pippali</i> (Piper longum)	<i>Varti</i> (Suppository)
	<i>Ajashakruth</i>	<i>Godanta</i>
	<i>Godanta</i>	<i>Suryakantamani</i>
	<i>Shara</i>	<i>Shara</i>
	<i>Shalaka</i>	
<i>Mamsadagdha</i> (burn reaching upto muscle)	<i>Jamboushta</i>	<i>Madhu</i>
	<i>Dhatu</i>	<i>Sneha</i>
<i>Sira-snayu-asthi-sandhidagdha</i> (burn reaching upto veins-tendons-bones and joints)	<i>Madhu</i>	<i>Madhu</i>
	<i>Guda</i>	<i>Sneha</i>
	<i>Sneha</i>	<i>Jamboushta</i>
		<i>Guda</i>

According to *Charakasamhitha*, *Madhuchista*, *Taila*, *Majja*, *Kshoudra*, *Vasa*, *Grhutha* and *LohaShalaka* are used.

Chakradatta also mentions about usage of *Suchi* for *Agnikarma*.

Table no 2: *Dahanopakaranas*

<p><i>Pippali</i>(Piper longum)</p>	 A photograph showing several dried, brown, cylindrical roots of Piper longum (Pippali) scattered on a white background.
<p><i>Ajashakruth</i></p>	 A photograph showing a small cluster of dark, irregular, black stones (Ajashakruth) resting on a light-colored wooden surface.
<p><i>Shara</i></p>	 A photograph of a single, dark, arrow-shaped object (Shara) pointing to the right, set against a white background.
<p><i>Shalaka</i></p>	 A photograph of a copper rod (Shalaka) with a dark handle, positioned diagonally against a white background.
<p><i>Madhu</i></p>	 A photograph of a glass jar filled with golden honey (Madhu) and a wooden honey dipper resting on the rim, set against a white background.
<p><i>Guda</i></p>	 A photograph of a white plate filled with numerous small, golden-brown, irregular pieces of candied ginger (Guda) against a white background.

Types of Agnikarma

Based on *Akruthi* (shapes)

Acharya Sushruta has mentioned 4 types-

- Valaya* (circular shape)
- Bindu* (dot like)
- Vilekha* (making different shapes by *Shalaka*)

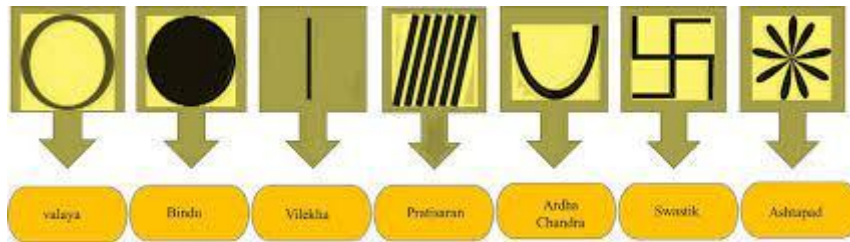
d. *Prathisarana* (rubbing at different site by heated *Shalaka*)

Acharya Vagbhata has added 3 more types-

- ArdhaChandra* (crescent shape)

- Astapada* (the shape containing 8 limbs in different directions)
- Swasthika* (shape of *swastika*)

Fig no; 2 Types of Agnikarma based on *Akriti*



According to *Dhatus*-

- Twakdagdha* (Skin burn)
- Mamsadagdha* (Muscle burn)
- Sirasnayudagdha* (Burn of tendon and vessels)
- Asthisandhidagdha* (Burn of bone and joints)

According to *dravya* used

- Snigdha Agnikarma*- which is done by using *Sneha dravyas* like *madhu, Ghrtha, Taila, etc*
- Ruksha Agnikarma*- which is done by *pippali, Shalaka, Ajashkruth, etc*

Season for performing *Agnikarma*
Except *Grishma* and *Sharad ritu* *Agnikarma* can be performed in all seasons, but in case of emergency, it can be done in all seasons by taking appropriate precautions.

Features of *Samyaktadgda* (proper burning)

- Twakdagdha* – In *Twakdagdha* it produces sound, bad odour, and constriction of skin.
- Mamsadagdha*- Appearance of color like pigeon (ashy, dark grey) mild swelling, pain, dryness and constriction of wound.

- Sira Snayu dagdha* -The ulcer becoming black and elevated, cessation of exudation.
- Asthi Sandhi dagdha*- Appearance of dryness and slight red color, roughness and firmness of ulcer.

Indications of Agnikarma⁸

Agnikarma should be done in conditions such as presence of severe pain in skin, muscles, veins, ligaments, joints and bones.

Granthi (Lymphnode), *Arsha* (Haemorrhoids), *Arbuda* (Tumors)
Bhagandhara (Fistula-in-ano), *Apachi, Shleepada* (Filariasis)
Charmakeela, Antrvridhi, Excessive bleeding from *Sandhi, Sirachedana, Naadivrana* and Profuse hemorrhage.

There are more diseases where *Agnikarma* can be done as a therapeutic measure explained by other classics also

Contra-indications⁹

- Agnikarma* should be avoided in persons with *pitta prakruti*, in *Sharad* and *Greeshma rtu*.
- In children and Aged person.
- Persons who are lean, thin and coward.

4. In pregnancy, internal bleeding, bleeding disorders, perforations and foreign body inside.

5. The persons who are unfit for Sudation. Acc to Acharya Charaka Agnikarma should not be done in patients having Vrana of Snayu, Marma, Netra, Kushta and Vrana with Visha and shalya.

Acc to Ashtanga sangraha, Agnikarma Should not be done in the patients who has took virechana, suffering from Atisara and who is contraindicated for Ksharakarma.

Poorvakarma (pre-operative)

1. All the require materials for Agnikarma should be kept ready

2. Proper Assessment should be done before performing Agnikarma.

3. Picchila Anna should be given before the procedure in all cases

4. In diseases such as obstructed foetus, Urinary calculi, Fistula-in-ano, Enlargement of abdomen, Haemorrhoids and diseases of mouth - Agnikarma is indicated in empty stomach.

5. Patient can be given any comfortable position.

Pradhana karma (Operative procedures)

• Patients will be made to lie in prone position

• Mark the maximum point of tenderness after proper examination

• Painting the area to be cauterized is painted with Panchavalkala Kashaya

• Make the Shalaka or Dahanopakaranas to become Redhot by placing the Shalaka upon fire.

• Agnikarma should be performed by using Red hot Panchaloha Shalaka or other various Dahanopakaranas until samyak dagdha lakshanas are achieved.

• Samyaktagdha; which is not deep, even, has color of TalaphalaVarna.

Paschath karma (Post-Operative)

• Madhu and Ghrita should be applied over the wound for proper healing.

Complications of Agnikarma¹⁰

Acharya Sushruta explained the complications of Agnikarma of under the name of Anyathadagdha or Itharathadagdha.

• **Plushtadagdha;** Plushta is that which has a pigmented area on the skin Associated with severe burning sensation.

• **Durdagdha;** in which Sphota (blebs, vesicles) appear. Accompanied with severe pain such as sucking, burning, redness, exudation/ulceration and pain which subsides after a very long time.

• **Atidagdha;** Atidagdha is that in which the muscles are hanging loose, body is stiff, severe pain in veins associated with fever, burning sensation all over the body, severe thirst and fainting. Wound healing after a long time and healed ulcers have discoloration.

Probable mode of Action of Agnikarma

• Agnikarma having the Ushnaguna - pacifies the diseases which arises from Vata and kapha.¹¹

• Agnikarma increases the Dhatwagni of all the tissues which helps to digest the Aggravated doshas/Amadosha and cures the disease.¹²

• In modern ways the local thermo therapy may increase tissue metabolism which may leads to exertion of the unwanted metabolites and toxins.¹³

• Heat may stimulate the lateral spinothalamictract (SST) that leads to stimulation of descending pain inhibitory fibers (DPI) which release of endogenous opioid peptide binds with opioid receptors and blockage of transmission of pain sensation occur.¹⁴

• Gate control theory¹⁵

The 'The Gatecontrol Theory' (Melzac and Wall 1965) proposed a mechanism of modulation of information along nociceptive afferent pathway.¹⁰ The theory suggests that the high frequency volley of impulse from large A δ fibres close the gate for pain transmission. The implementers of this pathway are identified as neurotransmitters. Endogenous chemical messenger's i.e. Neuro-transmitters disseminate signals across a chemical synapse, from one neuron to another "target" neuron, muscle cell, or gland cell. These chemical communications are vital in the modulation of pain

- **Muscle relaxing effect¹⁶**

Rise in temperature induces muscle relaxation and increases the efficiency of muscle action as the increased blood supply ensures the optimum conditions for contraction

- **Glandular Effect¹⁷**

The heat exposed to the area results to stimulation of the sensory nerve endings which cause stimulation of sweat gland locally. As the heated blood circulates, it affects area concerned with regulation of temperature and there is increased activity of the sweat glands throughout the body. When generalized sweating occurs, an increased elimination of waste products takes place.

- **Effect on Circulation¹⁸**

On vasodilation, the peripheral resistance is reduced and this causes a fall in blood pressure.

DISCUSSION: Agnikarma is one of the prime parasurgical procedures. The diseases treated by Agni will not reoccur again and is useful in treating many chronic diseases, which are otherwise untreatable. The usage of cautery mentioned in pre-historic times was used

to obtain haemostasis and other therapeutic purposes. In *Ayurveda*, treatment of various diseases by heating tissues at localized area is known from long years ago. Now, with advancement of technology Agnikarma is improved by introduction of electric current by usage of probes, which concentrate and distribute the heat at the specific site where it is required.,

The main forms of cauterization used today are electro cautery and chemical cautery. The Agnikarma is creating wonders in the field of clinical practice; it produces the instantaneous relief by giving instant reduction in pain, release of muscle spasm, stiffness and subsides inflammation. It is highly effective in reducing the *Ruja*, *Sthamba*, *Suptata*, and *Gourava*. Acharya has explained different shapes for performing Agnikarma which can be implemented and used based on anatomical location of pain as well as chronicity of diseases.

The actual mode of action of Agnikarma still remains debatable. Many scholars have explained their own views regarding the mechanism of action but vary according to the condition.

CONCLUSION:

Agnikarama is the one of the main - pain management treatment modality which is described in *Ayurveda* and also performed in different places with different *dahanopakaranas*; it is one of the most potent and minimally invasive *parasurgical* procedure which has wide application in chronic conditions as well as emergency management. Nowadays Modern Medical Science uses cautery like instruments which is nothing but a modified version of the ancient Agnikarma techniques. This is superior treatment than all other procedures.

The scientific practice of *Agnikarma* by Ayurvedic doctors has to be brought to limelight for serving the mankind, awareness regarding this novel technique of pain management reach the common people and benefit scores of patient suffering from various diseases which are amenable to *Agnikarma* chikitsa.

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