

## REVIEW OF AGNIKARMA (CAUTERIZATION) IN THE MANAGEMENT OF CHRONIC WOUNDS

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### ABSTRACT

Ancient surgical science was known as Shalya-tantra. Shalya Tantra is one of the important branches of Ayurveda in which surgical and parasurgical techniques has described for management of various diseases. Anushastra Karma means surgical procedure performed by non surgical items or instruments in absence of surgical instruments & Agnikarma is one from them. Mere utilization of agnikarma, which is counted in anushastra, upayantra and shashti upakrama, provides Shalyatantra the unique position among the eight faculties of Ayurveda. *Agni karma* is second important *anushastra karma* which is described by all the *acharyas*. Wounds, particularly chronic wounds

are major concerns for the patient and clinicians. Wound is delineated as disruption of structural and physiological continuity of skin. In Ayurveda, shashthi upakramas are described in details with reference to Vranopkramas. Each one is explained in detail with different drugs and stages of vranas depending on their respective gunas. Acharya Charaka in his chikitsasthan specially advocated the role of Agnikarma in the management of chronic wounds (Cha.chi.25/42). Agnikarma is very helpful to remove the necrotic tissue which is the main obstacle in the process of wound healing and also as heat itself act as a sterilization, it is very much beneficial in the process of chronic wound healing. (Dalhana). Considering all these facts, a literature study carried out & it is found that Simple, safe, cheap and practicable Ayurvedic procedures like Agnikarma have not been studied so far in the management of Chronic wounds which leave a scope to explore the problem in the light of scientific explanation.

**KEYWORDS:** Agnikarma, Parasurgical Ayurveda, Shalyatantra, Chronic wound.

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## INTRODUCTION

Ancient surgical science was known as Shalya-tantra. Shalya Tantra is one of the important branches of Ayurveda in which surgical and parasurgical techniques has described for management of various diseases. It embraced all processes aiming at the removal of factors responsible for producing pain or misery to the body or mind. **Anushastra Karma** means surgical procedure performed by non surgical items or instruments in absence of surgical instruments. Acharya Sushruta described different Anushastra, these are twakasara (bamboo bark), sphatika, Kancha (led), kuruvind, jalauka(leech), agni (flame), kshara (alkali), nakha (nails), goji(govivha), shephalika(harasringar leave), shaka patra(sagaun leave), kareera, bala(hair) and anguli(finger) etc (Su.Su 8/15).

The word Agnikarma consists of Agni + Karma i.e. Heat + Procedure. “When Samyaka Dagdha Vrana produced by Agni with the help of various Dravyas called as Agnikarma”. Mere utilization of agnikarma, which is counted in anushastra, upayantra and shashti upakrama, provides Shalyatantra the unique position among the eight faculties of Ayurveda. *Agni karma* is second important *anushastra karma* which is described by all the *acharyas*. There are so many tools for *agni karma* like *pippali*, goat stool pellets, teeth of different animals, *shalaka* (probes) and *snehapadartha* (ghee, tail, *guda*, honey). *Valaya*, *bindu*, *vilekha* and *pratisarana* are types of *dahana (agni karma)*. Agnikarma can be utilised – As preventive measure, as curative measure, as postoperative procedure, and as haemostatic measure. Agnikarma does not allow the diseases to reoccur, once they are treated by it. Agnikarma is superior to kshara by means of its action. Agnikarma is always utilised as the ultimate measure among the yantra, shastra, anushastra, kshara etc., because of its ability to cure those diseases also, which can't be cured by the bsheshaja, shastra and ksharakarma. Agnikarma is the ultimate measure for the haemostasis among the four raktasthambhana measures.

Agni, visha, shastra, kshara are dreadful when they are in unskillful hands. Hence should be used with great care and skill. (As. Hriday).

The primary factor that needs to be addressed in wound infections is proper wound care. In Ayurveda shashthi upakramas are described in details with reference to Vranopkramas. Each one is explained in detail with different drugs and stages of vranas depending on their respective gunas. Acharya Charaka in his Chikitsasthan specially advocated the role of Agni in the management of chronic wound. And hence there is a scope for therapies like

Agnikarma mentioned in Ayurveda to help these patients as these are easily available, cost effective and very efficacious as a sterilizing agent, helping in improving microcirculation.

### AGNIKARMA PROCEDURE DEFINITION

The word Agnikarma consists of Agni + Karma i.e. Heat + Procedure. “When Samyaka Dagdha Vrana produced by Agni with the help of various Dravyas called as Agnikarma”.

Regarding the Agnikarma Chikitsa various references are available in the Ayurvedic literature. In Atharvaveda, Agni is accepted as God and Bhesaja in the reference of Krimi (Ath. 5/23/1,3,5). In Rihigveda (10/162/1-4) Agnikarma Chikitsa available in the reference of obstetric disease(10/162/1-4). Acharya Sushruta told Agnikarma as a Parasurgical procedure and it is superior to all Parasurgical procedure. *Sushruta* indicates *Agnikarma*(cauterization) in different surgical diseases in different places in *Sushrut Samhita*. In *Sutrasthan* he mentioned *Agnikarma* in, wounds having hyper granulation, *Charaka* advocates use of *Agnikarma* in wounds with hidden puss and lymph,

### DAHANUPKARANA

Dahanupakarana are the instrument to produce therapeutic burns (Samyaka Dagdha) during Agnikarma Chikitsa. They are classified as follows according to various Acharyas.

Dahanopakaran	Su.su.12/4	Ch.chi.25/102	AS.su.40	AH.su 30
Pippali	+	-	+	-
Ajashakrit	+	-	+	-
Godanta	+	-	+	+
Shara	+	+	+	+
Shalaka	+	-	+	-
Jambavastha	+	-	+	+
Dhatu	+	-	-	-
Madhu	+	+	+	+
Madhuchista	+	+	+	-

**DAHANA VISHESHA:** Dahana Vishesha is the figure produced in the skin after Agnikarma Chikitsa. 1) Valaya (circle) 2) Bindoo (dot) 3) Vilekha (parallel line) 4) Pratisarana (rubbing) Above mentioned four types are explained by Acharya Sushruta in the context of Agnikarma Vidhi Adhyaya (Su. Su. 12/11). On the other hand, Ashtanga samgrahakara mentioned three more Dahana Vishesha with addition of Sushruta Dahana Vishesha. 1) Ardhchandra 2) Swastika 3) Ashtapada.

## DAGDHA BHEDA

According to Sushruta, all Dagdha are included under four types of Dagdha Vrana.

- 1) **Plushtha Dagdha:** The skin is partially burnt and colour of skin is changed associated with severe burning sensation. Vagbhatacharya equates this to Tutthadagdha. This might be 1<sup>st</sup> degree of burn.
- 2) **Dur Dagdha:** Durdagdha is that in which sphota (blebs, vesicles) appear, accompanied with severe pain such as sucking, burning, redness, paka (exudation or ulceration) and pain, these subsiding after a long time.
- 3) **Samyaka Dagdha:** Ana-awagadha Vranata (Wound which is not deep) 'f' Talphala Varnata (Fruit of Tala tree-blue-black in color) 'f' Susamshita Vrana (Without elevation or depression)
- 4) **Ati Dagdha:** 'f' Mamsa-avalambana (Hanging, burnt tissue) 'f' Gatra-vishlesha (Parts become loose and useless) 'f' Destruction of Sira, Snayu, Sandhi (Tendons in joints) 'f' Jwara (Fever) 'f' Daha (Burning) 'f' Pipasa (Thirst) 'f' Murchha (Unconsciousness) 'f' Wound heals after a long time and healed ulcers have discoloration.

## CLASSIFICATION OF AGNIKARMA

Agnikarma is classified as follows:

- 1) **According to Dravya:** a. Snigdha Agnikarma: Madhu, Ghrita, Taila etc. are used for Sira, Snayu, Sandhi, Asthi type of Agnikarma.  
b. Ruksha Agnikarma: Pippali, kshara, Shalaka, Godanta are used for Twak and Mamsa dagdha.
- 2) **According to Site:** a. Sthanika (local): Kadara, Arsha, Vicharchika.  
b. Sthanantariya (systemic): Apachi, Gridhrasi S
- 3) **According to Disease,** a. In the disease like Arsha, Kadara etc. it should be done after surgical excision (Chhedana). b. In the disease like fistula, sinus etc. it should be done after surgical incision (Bhedana).
- 4) **According to Dhatu,** Sushruta gives the Twak Dagdha, Mamsa Dagdha, Sira-Snayu Dagdha and Asthi Dagdha Lakshana.(Su.Su.12/8).

Special Symptoms of Samyaka Dagdha Vrana Related to Twak dhatu: Shabdapradurbhao (Production of sound), Durgandhata (Bad odor), Twak Sankocha (Contraction of the skin).

Special symptoms of Samyaka Dagdha Vrana Related to Mamsa Dhatu : Kapotvarnata (Color like that of pigeon i.e. dark grey), Alpa Swayathu (Mild swelling), Alpa Vedana (Less pain), Shuska Sankuchit Vranata (Dry, contracted wound).

Special symptoms and signs of Samyaka Dagdha Vrana Related to Sira, Snayu: Krishna Vranata (Black coloration), Unnata Vranata (Elevated), Srava – Sannirodha (Stoppage of discharge).

**AGNI KARMA KALA (Suitable Time):** Agnikarma can be done in all seasons, except Sharad (autumn) and Grishma (summer); it because of, in Sharad there is a Prakopa of Pitta and Agnikarma also aggravates Pitta and it may be lead Pitta Prakopa, due to this reason Agnikarma is contraindicated. Even in these seasons it can be done in diseases of emergency, after adopting counter methods.

#### **INDICATION OF AGNIKARMA**

1. Shiroroga – 2. Vataja Vratma Roga -3. Pakshmakopa –4.Adhimantha -5.Lagana -6.Medoj Ostharaoga -7.Krimidanta –8.Adhidanta9.Arsha –10.Bhagandara-11.Chipa-12.Kunakha -13.Kadara 14.Valmika –15.Jatumani 16.Tilakalaka – 17. Charmakila –18.VisaChikitsa-19.Mushakavisha 20.Gridhrasi- 21.Vatajashula-22.Galaganda -23.Apachi-24..Granthi -25.Antravridhi-26. Shlipada 27.Nadivrana -28.Rakta Atipravritti.

#### **Contraindications Of Agnikarma**

1)Pitta Prakriti 2) Bhinna Kostha 3) Daurbalya 4) Vruddha 5) Antah Shonita 6) Anuddhrata Shalya 7) Bala 8) Bhiru 9) Multiple Vrana 10) Balaka 11) Who is contraindicated for Swedana (sudation) therapy

According to Charaka Agnikarma should not be done in the Vrana of Snayu, Marma, Netra, Kustha and Vrana with Visha and Shalya (Ch. Chi. 25/105).

#### **PURVA KARMA**

##### **Pre-operative assessment**

Agnikarma is contraindicated in the person who have Pitta predominant Prakriti (constitution) or diseases of Paitika dosha.

**Diet:** Patient is advised to take Pichchhila and Snigdha light diet before treatment.

**Inform consent:** It is advisable to take written inform consent of the patient before going to Agnikarma.

### **Proper instrumentation (Agropaharaniyani)**

Arrange all required Agropaharaniyani described by Acharya. Prepare suitable decoction for Prakshalana of the local part of patient. Madhu, grita, Yashtimadhu Churna, small pieces of Kumari Patra, Plota (gauze piece), Pichu (cotton), required dahanopkaran are kept ready for use.

### **PRADHANA KARMA**

**Aasana for Agnikarma:** It should be according to wound site

**Painting and Drapping:** The patient has been advised to take position according to wound site. Then the diseased area is isolated and paint (Prakshalana) with suitable Kashaya.

Dagdhkarma: After carefully considering the symptoms of the disease, the vital spots and the strength of the patient, the physician should perform Agnikarma. On the diseased skin of the patient, the Samyak Dagdha Vrana is done by suitable dahanopkaran. After making Samyak Dagdha Vrana immediately apply cooling agent like kumari gel, ghrita to subside burning pain. Here, we can do dusting of Yashtimadhu Churna and Samyak Dagdha Vrana is covered with Plota (gauze piece) and proper Patta Bandhana (bandaging) is applied.

### **Pashchat karma**

After Agnikarma, it should be observed for any complications. If there may sepsis in the wound, treat the patient accordingly.

**Pathya Apathya & Follow Up:** In Agnikarma procedure, we made Samyak Dagdha Vrana (therapeutic burn). It is necessary that it could be heal without any complications. So, all the Pathya-Apathya which described by Acharya Sushruta should be advised. The complete Ropana (healing) on the Vrana should be observed. Agnikarma Chikitsa can be repeated after 7 days.

### **DISUSSION**

Classics of Ayurveda especially Sushruta has emphasised details of wound & its management which occur either as a result of vitiated dosha or are traumatic in origin.

This karma is minimally invasive and it can be carried out with minimal discomfort to the patients. This speciality is gaining popularity now a days owing to its several benefits over invasive procedures The results are cheap, comfortable and carry higher treatment benefits.

### **Mechanism of Action of Agnikarma in chronic wound**

1. Due to *Ushna, Tikshna, & Sukshma Guna* it removes the *Srotavarodha*, pacifies the vitiated *Doshas* and maintains their equilibrium
2. As a result of Agnikarma, there is vasodilation causing increase in metabolism, so the necessary nutritive material are supplied and unwanted products are removed (As agni increases dhatwagni of particular deranged dhatu leading to ama pachana)
3. As heat itself is a sterilizing agent, so *Agnikarma* also helpful in minimizing microorganisms load in the wound(sepsis by unheated instrument (Dalhana on Su. Chi. 2/46).
4. It increases the Microcirculation to affected site.

### **CONCLUSION**

Wounds, particularly chronic wounds are major concerns for the patient and clinicians whereas Ayurvedic parasurgical procedure like Agnikarma has provided marked improvement in the disease. By the process of Agnikarma, there is no fear of putrefication and bleeding. It also yields quick relief.

Agni (fire) is better than alkali in action of burning; it is said so, because disease treated by burning will not recur again and also because those disease which are incurable by the use of medicines, sharp instruments and alkalis will be cured by Agnikarma. The surgical excision should be done with the sharp instrument, which is heated by Agni with benefit of asepsis; otherwise there will be sepsis by unheated instrument (Dalhana on Su. Chi. 2/46). By these virtues Agnikarma is having greatness than other procedures.

Simple, safe, cheap and practicable Ayurvedic procedures like Agnikarma have not been studied so far in the management of Chronic wounds which leave a scope to explore the problem in the light of scientific explanation.

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