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## A critical appraisal on Agnikarma for the management of Dagdha vrana.

**Patil D**

Professor, Department of Shalyatantra, Glocal College of Ayurvedic Medical Sciences, & research centre,  
Mirzapur Pole, Saharnpur. (UP),India.

**Abstract:** Shalya Tantra is one of the eminent branches of Ayurveda, which consists of major therapies like Bhesaja karma, Kshara Karma, Agni karma, Shastra karma and Raktamokshana. Agnikarma is the use of various materials to apply Agni or heat to the damaged area, either directly or indirectly, in order to treat an ailment. Sukshma, Laghu, Tikshna, and Ushna guna are Agni's qualities. The therapeutic heat penetrates deeper tissue, such as the Mamsa Dhatu, and neutralises the Shita Guna of the Vata and Kapha Doshas, restoring balance to the vitiated Doshas and providing comfort to the patients. Agnikarma generates a coagulative necrosis on the skin's surface layers, resulting in self-healing. Post-procedural treatment, either locally or orally, is not required. Ancient Indian surgeons prescribed various materials such as Pippali (piper longum), Ajasakrut (goat's excreta), Godanta, Shara (arrow), Shalaka (metal Rods), Kshoudra, Guda (jaggery), Sneha, etc. for cauterising specific body parts such as skin, muscle, blood vessels, ligaments, and Agni karma is also performed by Shalakas, which are made up of various dhatus such as gold, silver, copper, iron, and so on, for various phases of ill diseases.

**Key words:** Shalya tantra, Agnikarma, Vata, Kapha, Shalakas, Ushna guna

### Corresponding Author:

**Dr. Dharpal Patil ,**

Dean &amp; Professor, MS , Ph.D. (Shalya)

Department of Shalyatantra, Glocal College of Ayurvedic

Medical Sciences, &amp; research centre, Mirzapur Pole,

Saharnpur. (UP),India



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**INTRODUCTION :**

Ayurveda is the oldest science of human civilisation, and it describes surgical and parasurgical ways for treating a variety of ailments. It encompassed all methods aimed at eliminating elements that cause pain or unhappiness in the body or mind. Sushruta samhita is the most significant Ayurvedic text, and it contains numerous surgical and parasurgical methods that are still used in modern medicine.<sup>[1]</sup> In the absence of surgical equipment, Ayurvedic Acharyas have stated Anushastra Karma, in which surgical operations are accomplished with non-surgical things or instruments. Sphatika, Kancha, Jalauka (leech), Agni (flame), Kshara (alkali), and other Anushastratwakasara were described by Acharya Sushruta. Kshara karma, Agnikarma, and Jalaukawacharana are the three most essential Anushastra karma that Acharya Sushruta included in his shasti upakrama. While defining Shalyatantra, Acharya Sushruta suggested Agnikarma as a superior method of cauterisation than Kshara since it eliminates pathology completely.<sup>[2]</sup> Agnikarma was an Ayurvedic surgeon's asset that has been employed in clinical practise since the beginning of time. It is predominant in the Rujapradhana, Vata, and Kaphaja vyadhis. Ruksha Agnikarma (dry substances) and Snigdha Agnikarma are the two categories. Regardless of the form or amount of pathology, Pancha dhatu shalaka has been employed on a regular basis for Agnikarma.

However, according to tradition, the specificity of Dahanopakarana is dependent on the severity of the condition. In most cases, painful conditions are associated with musculoskeletal system. Snigdha dravyas such as Kshaudra, Guda, Taila, Vasa, Madhuchista, and others are indicated for ailments in these areas because they have a deep heat penetration capacity and a longer latent heat duration.<sup>[3]</sup>

**Aim and objective :**

The aim is to appraise the importance of Agnikarma and management of various Dagdhavrana with Agnikarma.

**Material and Method:**

Agnikarma's references were gathered and collated from the Sushrut samhita and other ayurvedic classics. We also consulted a number of contemporary surgical textbooks. The numerous Agnikarma techniques are described, as well as their significance in ayurvedic surgical treatment.

**Historical View of Agni Karma****Acharya Charaka:** <sup>[4]</sup>

- In Sastra praidhana, Agnikarma is used as a therapy approach.
- In Manasa roga, Vividhasita pitiya Adhyaya is used as a therapy.
- Agnikarma is claimed to be used at Dvivraniya in Vya chikitsa.
- In Svayathu Chikitsa, in the context of Granthi roga and Bhagandara Chikitsa.
- In Udara Chikitsa, in the context of Plihroga and Yakrudodara.

- In Visarpa, Arsha Chikitsa is one of the four therapeutic techniques.
- Chikitsa Agnikarma is referenced in the Granthi visarpa management.
- In Vatavyadhi Chikitsa, in the Gadhrasi roga reference.
- In the framework of Trimarmya and Ardhvabhedaka chikitsa in Sidhisthna.

#### **Sushruta Samhita** <sup>[5]</sup>

- In Yantravidhi Adhyaya, it is stated as an Upayantra.
- In Agnikarmavidhi Adhyaya, Sushruta Acharya discusses Agnikarma.
- In the chapter, Agnikarma is listed as a Salyanirharaa vidhi.
- In Vatavyadhi Chikitsa of Sira, Snayu, Sandhi Asthigata vyadhi.
- In Asmari cikitsa for the management of Vṛuṇa.
- In Ksudra roga Chikitsa.
- In the context of Mukha roga Chikitsa

#### **Ashtanga Hridaya** <sup>[6]</sup>

- Aṣṭanga Hṛidaya Sutrasthana deals with Agnikarma Vidhi. Utility of Agnikarma in a large number of diseases have also been explained in this text.

#### **Harita Samhita** <sup>[7]</sup>

- Acharya Harita has mentioned Agni Karmas one of the eight important types of treatment.

#### **Detailed view of Agnikarma**

It is one among the Para surgical procedures which have been mentioned in

Ayurvedic literature which is performed with the help of Agni. Any procedure which is done directly or indirectly with the help of Agni is termed as Agnikarma.<sup>[8]</sup>

**Nirukti of Agnikarma** <sup>[9]</sup> The term Agnikarma has evolved from two words viz. Agni + Karma = Agnikarma. Agni shabd indicate that which has the course of action or movement in the upward direction and Karma means procedure.

#### **Classification of Agnikarma** <sup>[10, 11, 12]</sup>

- ❖ Based on the shape of burns
  - a) Valay -Encircling the root of the diseased portion
  - b) Bindu -Dots made with the tip of shalaka
  - c) Vilekha - Straight curved or horizontal line drawn with shalaka
  - d) Pratisaran- Rubbing with the side of shalaka

According to Acharya Vagbhata, it can also be of

- Ardhchandra (semiluner)
- Swastika (Swastik sign shaped)
- Ashtapada (direction eight direction)

- ❖ Based on extent of burn
  - a) Plashtam - insufficient burn (1 degree burn)
  - b) Durdagdha - Insufficient burnt (2-degree burn)
  - c) Samyak dagdha- properly burnt
  - d) Atidagdha - Excessively burnt.





**Figure 1 – Various classification of Agnikarma**

### Agnikarma Kala

Except for Sharad and Greeshma, Agnikarma may be performed in all climates. The burning sensation and other accompanying clinical symptoms that develop after Agnikarma are aggravated in these two climates due to the environmental condition. Despite these contraindications, Sushrutacharya notes that Agnikarma may be performed regardless of the Ritu and Agnikarma Sadhya Vyadhi with

required safeguards such Sitacadana, Sita Virya Bhojana, and Pradeha with Sita Virya Dravya.<sup>[13]</sup>

### Dahupakarna

Dahupakarna refers to the instruments or chemicals utilised in the Agnikarma technique. Different instruments are devised by our Acharya based on the portion where cauterization is to be done and the material's ability to retain and transfer heat energy. Different Acharya have differing opinions on which instrument should be utilised as mentioned in **Table 1**.<sup>[14,15]</sup>

**Table 1 – Various Dahupakarna mentioned by Acharyas :**

Name of Dahanaupakarna	Sushruta Samhita	Charak Samhita	Ashtanga Hridaya
Pipali	+	-	-
Shalaka	+	-	-
Suchi	-	-	+
Loha	+	+	-
Hema (gold)	-	+	-
Tamra (copper)	-	+	-
Rajata (silver)	-	+	-
Jambavastha	+	-	+
Godanta	+	+	+

Acharya Sushruta has advised the use of Dahanaupakarna according to site of the disease:

- For disease situated in Twacha – Pippali, Gpdanta, Shara, Shalaka, etc.

- For disease situated in Mamsa – Jambhavastha Shalaka and other metals.
- For disease situated in Sira, Snayu, Sandhi, and Asthi – Madhu, Guda and Sneha are to be used.

### Indication for Agnikarma

In several places throughout the Sushrutsamhita, Acharya Sushruta mentions agni karma in relation to various surgical disorders. Sashtiupakram incorporates Agni karma in the treatment of wounds. Agnikarma may help

wound healing by drying up discharges such as pus, serous, or blood. Agnikarma is mentioned in Snayu, Sandhi, and Asthigat Vata Prakop in Vatavyadhi chikitsa. In the Sutrasthana, Acharya describes some disease conditions where Agnikarma is indicated, such as Twacha, Mamsa, Sira, Snayu, Sandhi, and Asthi, where there is sharp pain due to vataprakop, wounds with hypergranulation, hard texture, and disease like Arsh, Granthi, Arbud, Bhagadar, Apachi, Slipada, Kadar, Katishool, Vatavyadhi.<sup>[16]</sup>

**Table 2 – Indications of Agnikarma mentioned by Acharyas**

Acharya Charaka	Acharya Sushruta	Acharya Vagbhata
Ardhav Bhedaka	Shiroroga	Lingarsha
Visa Chikitsa	Adhimantha	Adhimantha
Sarpa Damsa	Sonita Ati praviti	Gulma
Gridhrasi	Krimi Danta	Krimi danta
Ganda mala	Arsha	Kadara
Sotha	Sarpana Dmasa	Sarpana Damsa
Arbuda	Arbuda	Arbuda
Granthi	Granthi	Granthi

### Contraindication for Agnikarma

- Unsuitable Prakruti – Pittaja
- Unsuitable season – Grishma and Sharada
- Unsuitable age – Bala and Vridha
- Unsuitable according to strength – Durbala, Abala, Bheeru
- Unsuitable disease – Antahashonita, Rakta pitta, Anudhruta shalya, Netra vrana, Kshama, Ajeerni, Madhya Peetha, Trishna, Jwara

- Unsuitable condition – Garbhavastha, Vishadayukta
  - Unsuitable Sthana – Marma and Snayugata Vrana
  - Unsuitable Dushya – Rakta and Pitta
- Rakta, Pitta and Agni all three have Smana Virya thus Agnikarma if performed can result into excessive burning sensation, Jwara, Sphota Utpatti, etc.<sup>[17]</sup>

### Agnikarma Vidhi<sup>[18,19]</sup>

Purvakarma is a crucial step before the treatment begins. It entails choosing a patient for Agni karma. Pichila Anna, according to Sushruta, must be given to patients who would be subjected to Agnikarma. Pichila Anna possesses Sita, Mridu, and Pichila Virya, according to Dalhana acharya, and so has Pittaghna qualities. Prior to Agnikarma, the Roga samsthana, which determines the exact Dahana Vishesh to be used, the consideration of Marma in the area of the Agnikarma location, the Balabala of the Rogi, the qualities of the Vyadhi, and Ritu must all be considered. Before going to Agni Karma, it's a good idea to get the patient's written consent. Arrange all of the essential Agropaharaniyani according per Acharya's instructions. Prepare an appropriate decoction for the Prakshalana of the patient's local area. Madhu, Ghrita, Yashtimadhu Churna, Kumari Patra tiny pieces, Plota (gauze piece), Pichu (cotton), and needed Dahanopkaran are all kept on hand.

The Rogi's Aasana should be chosen according to the wound site in Pradhanakarma. The patient is instructed to lie down with his head pointing towards the direction of Prak. He should be held in the desired posture and kept there. The Agnikarma instrument must be exposed to Nirdhuma Agni, which is made by igniting wood from plants like Khadira and Badara. For this purpose, an upward travelling flame should be used. The instrument can be utilised for Agnikarma after it has become Bhasuravara.

Throughout the operation, one should talk positively to the patient and give water for them to drink. The diseased region is segregated and painted with appropriate Kashaya (Prakshalana). The physician should do Agni Karma after carefully evaluating the illness symptoms, important places, and the patient's strength.

Sushruta mentions the ointment of Madhu and Sarpi on the site of Agnikarma as a therapy in Samyak dagdha for the Paschatkarma. This ointment, according to Dalhaacharya, is intended for the Prasadana of vitiated Rakta and Pitta following Agnikarma. Vedanopasamaya is also reported to be a pain reliever. Ghruta Alepa has been stated, which is made up of Tugakiri, Plaka, Candana, Gairika, and Amruta. Pitta Pratyanka and Avisosi are the names given to this Lepa. Vata shamana has also been associated with Alepa of dried Gramya, Audaka, and Anupa mamasa. The rest of the management should follow the Pitta vidradhi therapy protocol.

#### **Features of Dagdha<sup>[20]</sup>**

- In Twachadagdha, Sabdpradurbhav signifies sound generation, Durgandhata indicates foul odour, and Twaksankoch means skin contraction at the Dagdha location. These characteristics of Twachadagdha may be related to the presence of more fibrous tissue in the skin, which causes sound, bad odour, and contraction following a burn.
- In Mamsadagdha, Kapotvarnata means the colour changes and turns pigeon-like,

Alpasvayathu indicates less swelling and discomfort, Shuska sankuchit vranata implies the wound produced during Dagdha is dry and tiny in diameter. This might be because muscle tissue has a lower blood and nerve supply than skin tissue, resulting in less discomfort and oedema. Muscles are reddish in colour and turn blackish after being burned.

- Sira's dagdha and Snayuvrana's dagdha have a dark colour, less swelling, and discharge. This might be caused by the coagulation of blood within the arteries during Dagdha.
- Sandhi and Asthi dagdha possess qualities as Ruksha (dry), Karkas (hard), Lalima (redness), etc. This might be owing to the fact that Sandhi and Asthi have less fluid.

#### **Management of Durdagdha**

Durdagdha might happen if the surgeon is inexperienced or if the patient does not maintain the correct posture throughout the Karma. The burn occurs deep in the skin. In this condition large vesicles are formed, Chosh type of pain, Daah (burning sensation), Raag (redness), Paak (putrification), and severe pain for long time are present. This may be considered as second-degree burn. Both Sita and Ushna kriya are used in the treatment of this illness. Vagadhamula dagdha bhaga and Anavagadhamula dagdha bhaga will be present in Durdagdha, i.e., deep and superficial burn sites may coexist. Shita kriya is for Nirvavana of Svinna rakta in Avagadhamula

dagdha bhaga, while Ushna kriya is for Vilayana of Asvinna rakta in Anavagadhamula dagdha bheda, according to Dalhanacharya.<sup>[20,21]</sup>

#### **Management of Samyak dagdha**

If the colour of burn tissue is like Taalaphalavarna and no deformity appears it is called Samyak dagdha (third degree of burn). Sushruta mentions the application of Madhu and Sarpi to the site of Agnikarma as a cure in Samyak dagdha. This ointment, according to Dalhaacharya, is intended for the Prasadana of vitiated Rakta and Pitta following Agnikarmma. It is also known as Vedanopasamaya, which means "pain reliever." Ghruta Alepa has been stated, which is made up of Tugakiri, Plaksha, Chandana, Gairika, and Amruta. Pitta pratyanka and Avisosi are two terms used to describe this, Lepa. Vata samana has also been associated with Alepa of Gramya, Audaka, and Anupa mamsa. The rest of the management should follow the Pitta vidradhi therapy plan.

#### **Management of Ati dagdha:**

If the burns occur deep and large part of muscles are burned and blood vessels, nerve and joints dislocate and extensive tissue damage occurs along with generalized features Jwara (Fever), Daha (burning sensation), Pipasa (excessive thirst) and Murcha (unconsciousness) appear as complication then that type of Dagdha is called Atidagdha (fourth degree of burn). The loose dangling Mamsa from the wound must be



removed as part of the treatment. The Sita kriya must be performed after this. Lepa of Shali paste and Tinduki bark paste with ghee have been suggested. Guduci leaves from aquatic plants like Padma, Ulpala, and others are used to cover wounds. In Ati dagdha vrana, Pitta visarpa Cikitsa is stated to be the preferred line of therapy.<sup>[20,21,22]</sup>

### **Management in Plushta dagdha:**

In Plushta dagdha the skin is partially burnt and the colour of skin is changed. Acharya Vagbhata equates this to Tuthadagdha. This might be the first degree of burn. Plushta dagdha is managed by Agnipratapana or Svedana, according to the text. Also, the Ausadha, which comprises Alepa, Anna, Pana, and others, should be of high potency. There would be an imperfect heat transmission in Plushta dagdha. As a consequence, Asvinna will be a part of Rakta. By doing Shita kriya directed towards Rakta pitta samana, this residual Asvinna Rakta creates discomfort. Rakta Skandana is the result of Sita kriya. As a result, Usna kriya must be performed in Plushta dagdha. Usna kriya dissolves the Styana rakta, which may otherwise give Margavarodha to Vata Usma, resulting in Sula, Sopha, and raga, among other things. As a result, Ushna kriya, also known as Rakta vilyana kari, should be performed to assist Usma nissarana and Vatanulaomana.<sup>[20,21,22]</sup>

### **DISCUSSION:**

Upanyantra and anushashtra are used to describe agnikarma. In sutrasthanam, Acharya

Sushruta describes Agnikarma in detail. Agnikarma, he claims, is better than kshara karma. There is no reappearance of sickness cured with Agnikarma, and there are some conditions for which medicine, surgery, and kshara karma are ineffective or impossible. Sukhsma, Laghu, Tikshna, and Usna guna are Agni's qualities. It has a Vata and Kapha doha effect. It has Usna and Tikshna gunas that act on Vata, and Laghu, Sukhsma, Tikshna, and Usna gunas that operate on Kapha. Because of the Laghu, Sukshma, and Tikshna guna's ability to penetrate deep tissue, it functions deep in the tissue. It not only works on the Dosha agni, but it also burns the dead tissue on the wound surface, producing thermal damage. It stimulates healing in chronic non-healing wounds in this way. Pipali, Godant (cow's teeth), Shalaka, Jambosth, Loha (metals or alloys), Madhu, Guda, and Sneha are some of the materials utilised in Agnikarma. Agnikarma is forbidden in Sharad and Grishma ritu, however it can be performed in an emergency with prudence. Some Acharyas believe that Agnikarma can only be used in Twacha and Mamsagata vikara, while according to Acharya Sushruta, it can also be used in Sira, Snayu, Sandhi, and Asthigat vikara.<sup>[23]</sup> Twacha, Mamsa, Sira, Snayu, Sandhi, and Asthi diseases (with extreme pain owing to vata vitiation) and chronic ulcers with Mansankur (small polyps), Granthi (outgrowths and hardness) are treated with Agnikarma.<sup>[24]</sup> Agnikarma is used to cure

disorders such as Arsha, Bhagandara, Arbuda, Apachi, Aantravidhi, joint disease, bleeding vessel, and sinus tract. On the basis of the technique done, Acharya Sushruta identified four varieties of Agnikarma. Patients with Pitta prakriti, Raktapitta, Atisara, retaining foreign bodies, debilitated, children, the elderly, persons scared of procedures, those who have several wounds already, and those who are unable to perspire should avoid Agnikarma. Pramada dagdha occurs when a surgeon excessively burns superfluous tissue or performs a burn on a healthy/non-diseased region of the body.<sup>[25]</sup> During performance of Agnikarma one should always assess the condition for grading of burn and manage accordingly. In plustdagdha the affected area of body should be kept warm by external application of lepa and internal usages of Usnavirya drugs. In durdagdha both sheeta and usna chikitsa should be employed. For local application Ghrita, seka and Alepa should be used. When surgery is not feasible to treat the problem or there is a significant risk of sickness recurrence, Agnikarma is straightforward to learn and apply in the management of many surgical disorders. Agnikarma may be done in a way that is both effective and safe. Its procedures are simple, and it hardly ever employs medications, both internally and externally.

### **CONCLUSION**

Today, there is a growing desire for simple, cost-effective treatments that have a

lower risk of recurrence and have no side effects for chronic illnesses. This is the moment to investigate Ayurveda's ancient and time-tested wisdom, as well as its unique procedures. The idea of Agnikarma is simple to understand and implement in the management of many surgical diseases when surgery is not possible to treat the condition or where there is a high risk of illness recurrence. Agnikarma may be performed in a highly effective and safe manner. Its methods are straightforward, and it practically never uses drugs, both inside and externally. It is incredibly easy and cost effective for the patients. More scientific investigations and evaluations of the Agnikarma technique were required. In comparison to current therapies, the total cost of the Agnikarma treatment is quite low. Fire will cure diseases that are incurable with the use of drugs, sharp instruments, and alkalies (thermal cautery). It also eliminates illness from the source, making it superior. Another advantage of agnikarma is that, because heat is a sterilising agent, it aids in reducing the number of bacteria in the wound. It is a day-care treatment that is both safe and effective. In the future, Agnikarma will be one of Ayurveda's most promising disciplines.

### **References:**

1. Sushruta Samhita, edited with Ayurveda tatva Sandipika by KavirajaAmbikaduttaShastri, Chaukhambha Sanskrit Sansthan, sutra sthanam chapter 1/9,p3.

2. Amit Kumar et al: Anushastra in Ayurveda surgery -Review and Clinical Application. International Ayurvedic Medical Journal; Volume 7, Issue 4, April-2019.
3. Sushruta Samhita Sutrashana by Kaviraj ambikadutta Shastri A.M.S. with "Ayurveda-Tattva-Sandipika" Hindi Commentary Part-I Edition Reprint (2007) Published by Chaukhambha Sanskrit Sansthan-Varanasi, chapter 12.
4. Dr.Y.G.Joshi, Charak Samhita of maharshicharak, Chakrapanidatta, commentator Charakasamhita, 5th ed. Varanasi: Chaukhambha Sanskrit sansthana; Chikitsa sthana, 2001; 23/46: 564.
5. Sushruta. Yadavaji Trikamji. Sushruta Samhita with Nibandhasagraha commentary of Dalhanacharya. Chaukhambha Surbharati Prakashan, Varanasi. Edition: Reprint, 2008; 261.
6. Vagbhata, Ashtanga Hrudaya Sutrasthana, Sarvanga Sundari commentary of Arunadatta and Ayurveda Rasayana commentary of Hemadri, edited by Bhisayacharya Harisastri Paradkar Vaidya, 9th edition ,reprinted on 2005,Chowkhamba Sanskrit Series Office, Varanasi, chapter 30, sloka 4
7. Maharshi University of management vedic literature collection. (1st Ed.). Haritsamhita, haritkrut. pratham-stan; chikitsa-sangrha - adhyaya: Chapter, 2(7): 5.
8. Dwivedi, A.P., Kanikkannan, L.S. and Lakshmanan, S. AGNIKARMA: A Reference Manual for Ayurvedic Physicians-Information Directly Extracted from Approximately 3000 Years Old Literature. AYURVEDIC-VRI press Vedic Research Online, USA Ayurvedic. 2005;2(2):19-26.
9. Vishal K, Ankush B, Anjali S, Tikitsha S. Therapeutic extent of agnikarma. Int. J. Res. Ayurveda Pharm. 2014;5(1):48-50.
10. Sushruta, Sushruta, Dalhana, Sushruta Samhita, sutra Sthana, Agnikarmavidhi Adhyaya,12/5 edited by Vaidya Ambikadutta shastri Acharya, Chaukhamba Surbharti prakashan reprint, 2012; Varanasi, pp51.
11. Dr. Hanumant Mansing Nagawade and Vaidya Nisha Rajendra Khairnar- THERAPEUTICS ASPECTS OF AGNI KARMA IN AYURVEDA; wjpmr, 2020,6(8), 217-220.
12. Shrikantha Murty KR. Astangasamgraha of Vagbhatt, SutraSthan, Agnikarma Vidhi 40/2-6, Edn 4 Chaukhamba Orientatalia Publication, Varanasi, 2001, 626-628.
13. SehgalU, Rajgopal M, Dwivedi RR. Role of Agnikarma and Ajamodadi vati in the management of Sandhigata Vata w.s.r. to cervical spondylosis.Ayu 2009;30:345-9.
14. Bakhshi B, Gupta SK, Rajagopala M, Bhuyan C. A comparative study of Agni karma with Lauha, Tamra and Panchadhatu Shalakas in Gridhrasi (Sciatica). Ayu 2010;31:240-4.

15. Dr. Rabinarayan Triphy, Dr. Shaithya Raj, Dr. Rajeshwari, P.N., Dr. Athulya and Dr. Lakshmy C. Senan, 2016, A review on the action of agnikarma international Journal of current research 8,(06),32319-32322.
16. Dr. Indradeva tripathi, Chakrapanidutta virachit – Chakradutta, edited by Prof. Ramanath Dwivedi, Chaukhambha Sanskrit Bhawan Varanasi, Edition:Reprint 2014, Vatavyadhi Chikitsa Prakaran (22/54).Pp-136
17. Shastri ambika Dutta, Sushrut Samhita, Poorvardha, Chaukhambha publication, Edition:Reprint 2010, Sutra Sthana (12/4). Pp.-51
18. Gaurav Soni, J. Manohar, Sandeep Langhne - A review on Agnikarma and its Physio-anatomical Effects, Int J Ayu Pharm Chem 2015 Vol. 2 Issue 3.
19. Acharya Priyavat Sharma, Shri Dalhanachrya virachit nibandhsangrha , Susruta samhita, Sutra sthana, Chaukhambha Orientalia, Varanasi, 2009, 12/5; p- 51.
20. Verma Alok Kumar- The Concept of Agni Karma In Ayurveda And Its Importance In Current Ayurvedic Surgical Practice; Ijaar Volume 1, Issue 7, Sep-Oct 2014.
21. Vagbhata, Ashtanga Hrudaya, Sarvanga Sundari commentary of Arunadatta and Ayurveda Rasayana commenta1 ry of Hemadri, edited by Bhisayacharya Harisastrri Paradkar Vaidya, 9th edition ,reprinted on 2005,Chowkhambha Sanskrit Series Office, Varanasi.
22. Madhavakara, Madhavanidana, Madhukosa commentary of Vijayarakshita and Srikanthadatta and with extracts from Atankadarpana by Vachaspathi Vaidya edited by Vaidya Yadavji Tricumji Acharya, 1st part, 30th edition 2000, Chaukhambha Orientalia, Varanasi.
23. Vagbhata, Ashtanga Hridaya with Sarvangasundarra and Ayurvedarasayana commentary, Edited by Pt. Hari Sadashiva Shastri Paradakara Bhisagacharya, Published by Chaukamba Orientalia Varanasi – 2017, nidanasthana 15/53, Page number 535.
24. Sri Chakrapanidatta, Chakradatta English translation by Dr.G.Prabhakar Rao, Published by Chaukamba Orientalia Varanasi – 2014, chapter 22/66 , Page number 216.
25. S.Das, A Manual on Clinical Surgery, Examination of the foot, Published by Dr.S.Das, Kolkata, May 2016, 11th Edition, Page number 326.

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