

**AGNIKARMA: A CONCEPTUAL REVIEW**<sup>1</sup> Debasmita Mohanty<sup>1</sup>Reader Department of Shalya Tantra, Gaur Brahman Ayurvedic College, Rohtak, Haryana.*Received on 20/04/2017**Accepted on 25/04/2017**Reviewed on 10/05/2017**Published on 22/05/2017***ABSTRACT**

*Agnikarma* is one of the important para-surgical procedure described in *Ayurveda* which is still in practice widely. *Sushruta Samhita* has extensively described *Agnikarma* methods, instruments, prerequisites and probable complications as well. This review is an attempt to present all descriptions in a methodical manner for better analysis & practical considerations by the practitioners & scholars. Specifically in the field of pain management and cosmetic therapy *Agni karma* procedure can be very effective. It's convenience & low cost has gained wider acceptability. More scientific studies and evaluation are required on *Agni karma* procedure to widen its applicability and benefit the mankind at large.

Key words: *Agnikarma*, *Ayurveda*, *Sushruta Samhita*, para-surgical procedure

## Introduction to concept of Agnikarma & its importance

*Agnikarma* is a Para-surgical procedure in which Agni is used for intentional burning for therapeutic purpose. It is indicated for various *vata kaphaj* disorders.

*Agnikarma* is a highly potential procedure than the *bhesaja shastra* and *kshara karma*. It is very effective as there is no chance of recurrence of the disease. No infection and secondary complications if done properly.<sup>1</sup>

Instruments used for *agni karma*: instruments which are used for *agnikarma* as per classical literature including the following

- *Twak dagdha*: *pippali, godanta, shara, shalaka*, excreta of goat
- *Mamsa dagdha*: *jamostha shalaka* and other metal *shalaka* like gold, silver, brass etc
- *Sira snayu sandhi* and *asthi dagdha* : warm honey, jaggery and *sneha dravya*<sup>2</sup>

### Appropriate season for *agnikarma*:

*Agni karma* can be done in all seasons except *greeshma* and *sharad*. In case of emergency it can be done in any season with special precautions.<sup>3</sup>

### Precautions taken during *agnikarma*:

*Agni karma* should not be done in empty stomach. It is better to take *picchila anna* before *agni karma*. One should be aware of vital parts of body, season, *vyadhi dosha avastha* etc before doing *agni karma*. But in case of certain diseases like *ashmari bhagandara arsha* and *mukharoga agnikarma* should be done in empty stomach.<sup>4</sup>

### Classification of *agni karma* :

According to some *Acharya agnikarma* is of two types *twak dagdha* & *mamsa dadgha*. But according to *dhanwantari sampradya sira snayu sandhi* and *Asthi* are also involved in *dagdha*<sup>5</sup>

- *Twak dagdha lakshanas*: production of sound, foul smell, *twak*

*sankocha*(contraction of skin at the site of *dagdha*)

- *Mamsa dagdha lakshanas* : *kapota varnata* ( change in colour ) *alpa swayathu & vedana* (little swelling & pain), *suska sankuchita vranata*(wound formed during *dagdha* is dry & of small circumference)
- *Sira Snayu dagdha* : black colour ( *krushnata*), *unnata vranata, srava sannirodha*
- *Asthi sandhi dagdha* ; *ruksha, arunata, karkasha & sthira*<sup>6</sup>

### Indication of *agnikarma* :

In *sira roga, netra roga dagdha* should be done on eye brow and temporal area, in *vartma gata vyadhi dagdha* should be done in *loma kupa* of *vartma*, covered by wet cloth so that heat could not damage the cornea and conjunctiva. Diseases of *twacha mamasa, sira snayu, sandhi & asthi* with severe pain due to vitiation of *vata*. Chronic ulcer with *mamsa ankura granthi*, treated with *agni karma*. *Arsha bhagandara, arbuda, apachi, sleepada, charmakeela, tila kalaka, antravidhi*, joint diseases, bleeding vessels and sinuses are treated with *agni karma*<sup>7</sup>

### Different shapes of *agni karma* :

*Agni karma* should be performed in four different shapes.<sup>8</sup>

*Valaya*: round shaped

*Vindu*: dot like

*Vilekha* : linear cauterization

*Pratarana*: irregular cauterization

According to *Vagbhatta* three more types of cauterization are performed

*Ardha Chandra* :

*Swastika*:

*Astapada* :

### Contra indication of *Agni karma*<sup>9</sup>

- *Pitta prakriti* individuals
- *Antah shonita* : Internal bleeding
- *Bhinna kosta* : Ruptured viscera

- *Nudhrita shalya* : in presence of foreign body
- *Durbala*: emaciated
- *Baala* : children
- *Vridha* : Old age
- *Bheeru* : patients with cowardice mindset
- *Aneka vrana peedita*: affected with many infected wounds

### **Dagdha (burn) conditions<sup>10</sup>**

*Agni dagdha* (conditions) are categorized as per the magnitude of *dagdha*, such as

- *Plusta dagdha*
- *Durdagdha*
- *Samyak dagdha*
- *Ati dagdha*

When *Agni karma* is performed for therapeutic purpose then the *Dagdha* must be *Samyak dagdha*. In *plusta dagdha* the skin is partially burnt and the colour of skin is changed. *Vagbhatta* compares this to *tutha dagdha*. In *durdagdha* condition, burn is deep into the skin. In this condition large vesicles are formed. *chosha*, *daha*, *raga*, *paka* and severe pain for long time are present. If the colour of tissue is like *taala phala* and no deformity appears then it is called *samyak dagdha*.

If the burn is deep and large part of muscles blood vessels, nerves, joint gets dislocated and extensive tissue damage occurs along with generalized features of *jwara daha*, *pipasa*, *murcha* appears as complications then that type of *dagdha* is called *ati dagdha*

After *Agnikarma* patients usually suffer from severe pain, burning sensations, appearance of large vesicles because of *kupita agni* vitiated *rakta* and because of same composition of *pitta* it also vitiates and produces features described above.

### **Treatment of above type of dagdha**

According to classical texts:

- In *plusta dagdha* the affected area of body should be kept warm by external application of *lepa* and internal use of

*ushna virya* drugs, this management has a scientific logic that due to burn the blood in the cutaneous vessels becomes more concentrated due to loss of water. In this condition a cold therapy is given. Then it may increase the coagulability of blood and loose its capacity to carrying oxygen to the tissues. So warm treatment is advised for *plusta dagdha*.<sup>11</sup>

- In *durdagdha* both *shita* and *ushna chikitsa* should be given for local application. *Ghrita seka* and *alepa* should be cold.<sup>12</sup>
- In *samyak dagdha* for local application *vamshalochan*, *plaksha*, *lal chandan*, *sona geru* and *giloy* should be applied with ghee and treatment should be given like *pitta vidradhi*.<sup>13</sup>
- In *ati dagdha* burnt tissue should be excised and first *shita upachara* is done. And treatment should be done like *pitta visarpa*.<sup>14</sup>

*Acharya Shusruta* has described *agni karma* in different surgical diseases in various chapters, in the management of wound under *shasti upakrama* he has included *agnikarma*. In *vata vyadhi chikitsa agni karma* is indicated in *snayu sandhi asthi gata vata prakopa*.

### **Possible mechanism of action**

*Agni karma* cures all *vataj* and *kaphaja* disorders as *ushna guna* of *agni* is opposite to that of *vata* and *kapha dosha*. According to *Ayurveda* every *dhatu* has its own *dhatwagni* and when it becomes low diseases manifest. In this condition *agni karma* works by local thermal therapy which may increase tissue metabolism and leads to excretion of unwanted metabolites and toxins. Heat may stimulate lateral spino-thalamic tract which leads to stimulation of descending pain inhibitory fibers which release endogenous opioid peptides. These peptides binds with opioid receptors at substantia gelatinosa rolandi which inhibits release of

substance P (pre synaptic inhibition) and blockage of transmission of pain sensation.<sup>15</sup>

### Modern day procedure parlance

**Cauterization** (or cautery) is a medical practice or technique of burning a part of a body to remove or close off a part of it. It destroys some tissue in an attempt to mitigate bleeding and damage, remove an undesired growth, or minimize other potential medical harm, such as infections when antibiotics are unavailable.<sup>16</sup>

The practice was once widespread for treatment of wounds. Its utility before the advent of antibiotics was said to be effective at more than one level:

- To stop severe blood-loss and to prevent exsanguinations
- To close amputations
- Cautery was historically believed to prevent infection, but current research shows that cautery actually increases the risk for infection by causing more tissue damage and providing a more hospitable environment for bacterial growth.<sup>17</sup>

Actual cautery refers to the metal device, generally heated to a dull red glow, that a physician applies to produce blisters, to stop bleeding of a blood vessel, and for other similar purposes.<sup>18</sup>

The main forms of cauterization used today in the first world are electro-cautery and chemical cautery.

Cauterization was used to stop heavy bleeding, especially during amputation. The procedure was simple: a piece of metal was heated over fire and applied to the wound. This caused tissues and blood to heat rapidly to extreme temperatures, causing coagulation of the blood and thus controlling the bleeding, at the cost of extensive tissue damage.

Cauterization was a common treatment in the Middle Ages, sometimes unintentionally as with Saint Hubert's Key. Cautery is described in the Hippocratic Corpus.<sup>19</sup> The cautery was employed for almost every possible purpose in

ancient times: as a counter-irritant, as a haemostatic, as a bloodless knife, as a means of destroying tumours etc.<sup>20</sup> Later, special medical instruments called cautery were used to cauterize arteries. The technique of ligation of the arteries as an alternative to cauterization was later improved and used more effectively by Ambroise Paré.

**Electrocauterization** is the process of destroying tissue (or cutting through soft tissue) using heat conduction from a metal probe heated by electric current. The procedure stops bleeding from small vessels (larger vessels being ligated). Electro-cautery applies high frequency alternating current by a unipolar or bipolar method. It can be a continuous waveform to cut tissue, or intermittent to coagulate tissue

### Conclusion

In the field of pain management and cosmetic therapy *Agni karma* procedure can be done very effectively. Its procedure is simple and almost needs no medicine for internal and external uses. It is very convenient and economic for the patient. More scientific studies and evaluation are required on *Agni karma* procedure /therapeutics to widen its applicability and benefit the mankind at large.

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