



REVIEW ON AGNI DAGDHA VRANA AND ITS MANAGEMENT

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Article Received on 28/08/2018

Article Revised on 18/09/2018

Article Accepted on 09/10/2018

ABSTRACT

Dagdha Vrana was explained by *Acharya Sushruta* in the context of *Agnikarma Adyaya* under the heading of *Itaratha Dagdha*, which means the burns which are caused by other sources and not by *Vaidya*. In turn which can be taken as burns caused due to electricity, moist heat, chemicals, radiations, cold burns etc. A burn is a wound in which there is coagulative necrosis of the tissue. The various types include scalds, electric burns, chemical burn, radiation burns, cold burns. *Acharya Sushruta* has explained *Dagdha Vrana*, its types, *Lakshanas*, and *Chikitsa* in detail.

KEYWORDS: *Dagdha Vrana*, burns, types, *Lakshanas*, *Chikitsa*.

INTRODUCTION

Acharya Sushruta is considered as father of surgery. In his text *Susrutha Samhita*, he had explained about different types of *Dagdha Vranas* while explaining about *Agnikarma* in *Sutra Sthana* 12th chapter at the end of the chapter he had explained about *Itaratha Dagdha*, which means burns which are caused by other sources and not by *Vaidya*. In the same context he had explained about the *Prakaras*, its *Lakshanas* and management.

A burn is a wound in which there is coagulative necrosis of the tissue. Types include burns which are caused by dry heat, moist heat, electricity, chemicals, radiations etc.

Samprapti of Dagdha Vrana^[1]

Agni Dagdha Vrana



There will be vitiation of *Rakta*



Meanwhile *Pitta* also get vitiated, because of *Tulya Virya (Ushna Virya)*, *Rasa (Katu)*, *Dravya (Tejo Hetu)*.



Which causes *Teevra Vedana* and *Vidaahi*



Which leads to *Shigra Sphota* (blister formation), *Jwara* and *Trishna*.

Types of *Dagdha Vrana*^[2]

- 1) *Plusta Dagdha* (First degree burns)
- 2) *Durdagdha* (Second degree burns)
- 3) *Samyak Dagdha* (Third degree burns)
- 4) *Atidagdha* (Fourth degree burns)

Lakshanas

1) *Plusta Dagdha* - Features like *Vivarnatha*, Severe burning are noted.

First degree burns - Epidermis looks red and painful, no blisters, heals rapidly in 5-7 days by epithelialization without scarring.

2) *Durdagdha* - *Shigra Sphota*, accompanied with severe pain such as *Chosha*, burning, redness, *Paka* (exudation), subsides after a long time.

Second degree burns - The affected area is matted, red, painful, with blisters, heals by epithelialization in 4-21 days.

3) *Samyak Dagdha* - Which is not deep, has the color of *Tala Phala* (blue black), *Susamahita* (even without elevation or depression).

Third degree burns - The affected area is charred, parchment like, painless and insensitive, with thrombosis of superficial vessels. There will be formation of eschar.

4) *Atidagdha* - In which there will be loosening of *Mamsa*, *Gatravishlesha*, severe pain in the *Sira*, *Snayu*, *Sandhi* and *Asthi*, and which is also associated with *Jwara*, burning sensation all over the body, severe thirst and fainting, wounds heal after a long time and healed wounds have discoloration.

Fourth degree burns - Involves the underlying tissues - muscles, bones.

Treatment of *Dagdha Vrana***General line of management for all kinds of *Dagdha Vrana***^[3]

Madhucchista, *Madhuka*, *Rodhra*, *Sarjarasa*, *Manjistha*, *Candana* and *Moorva* should be made into paste and it should be added with *Ghirta*, this *Ghirta* is used for all kinds of burns.

1) *Plusta Dagdha Chikitsa*^[4]

- *Ushna Kriya* is the main line of treatment.
- Administration of the *Dravyas* which are having *Ushna Veerya*, because of *Ushna Kriya* there will be increased in body's temperature and thus the blood gets liquified. *Udaka* by its nature it is *Sheeta* and so it does the coagulation of blood hence *Ushna Kriya* only gives relief in this condition.
- *Dalhana* further says that because of *Ushna Kriya* there will be proper blood circulation, thus there will be quick relief from the symptoms. If *Sheeta Kriya* is done that will hamper the blood circulation hence in this *Ushna Chikitsa* is advised.

2) *Durdagdha Chikitsa*^[5]

- *Sheeta* and *Ushna Chikitsa*
- Application of *Ghrta*, *Seka* with *Sheeta Dravya*.

3) *Samyak Dagdha Chikitsa*^[6]

- *Alepana* should be done with *Ghirta* prepared with *Tugaksheera*, *Plaksha*, *Chandana*, *Gairika* and *Amrutha*.
- *Pralepana* with *Mamsa* of *Gramya*, *Anupa*, *Auduka* animals.
- Constant *Ushna Chikitsa* is given.

4) *Atidagdha Chikitsa*^[7]

- In this there will be *Mamsa Visheerana* so that as to excised followed by *Sheetala Kriya*.
- *Pralepa* should be done with *Tandula*, bark of *Tinduki* mixed with *Ghirta* and then cover the wound with *Guduci Patra* or by any aquatic plant leaves.

Dhumopahata^[8]

Dhumopahata means inhalation of smoke by any means of heat and resultant of which causes suffocation.

Lakshanas of *Dhumopahata*: - Increased respiration, sneezing, *Kasa*, *Daha* and *Raga* in the eyes, inhales smoke, will not have smell and taste sensation, *Swara* also gets affected, thirst, *Daha*, *Jwara*, person becomes weak and there will be *Murcha*.

Chikitsa

1) *Vamana* with any of these drugs like *Ghrta*, *Ekshu Rasa*, *Draksha*, *Ksheera*, *Sharkara Jala*, *Madhura* and *Amla Rasa Dravyas*. Because of *Vamana* there will be *Kostha Shuddhi* and the smell of the *Dhuma* will disappears.

By this even the symptoms like *Sadana*, *Jwara*, *Daha*, *Murcha*, thirst, distension of abdomen, *Swasa*, *Kasa* will reduce.

2) *Kavala graha*: - Should be done with *Madhura*, *Lavana*, *Amla*, *Katu Dravyas*.

By this there will be *Indriya Manas Shuddhi*.

3) *Sirovirechana*: - By this person's sight becomes clear and also his head and neck will becomes clear.

Ahara's: - which do not cause *Daha*, which are *Laghu* and *Snigdha*.

Inhalation injury^[9]

It occurs after major fire burns.

It is due to

- Inhalation of heat.
- Noxious gases and incomplete products of combustion.
- At the site of fire, oxygen concentration will be less

than 2% which can cause death in 45 seconds due to hypoxia.

- Inhaled carbon monoxide binds with Hb immediately to form carboxyhemoglobin causing severe anoxia and death.
- Smoke contains hydro cyanide which causes tissue hypoxia and profound acidosis.

Symptoms

- Charring of mouth, oropharynx with facial burns.
- Carbon sputum.
- Change in voice, singed facial and nasal hair.
- Headache, disorientation, visual changes, fatigue, vomiting, hallucinations, shock and cardiac arrest.
- Laryngeal edema and laryngospasm.
- Bronchial edema and bronchospasm.

Management

- Take out the patient from the site.
- Ventilation should be given.
- Antibiotics.
- Oxygen supply.
- Tracheostomy whenever needed.
- Bronchodilators like albuterol 2nd hourly.
- Hypertonic saline inhalation induces the effective coughing to remove casts.
- Should monitor the patients with arterial blood gas analysis regularly.

Other types of burns^[10]

- **Ushna Vata Atapa Dagdha:** - Burns caused by excessive heat (sun stroke).

- **Management** - *Sheeta Kriya* to be done.
- **Sheetha Varsha Anila Dagdha:** - Burns which are caused by excessive cold whether.

- **Management** - *Snigdha, Ushna Chikitsa* to be done.
- **Atitejasa Dagdha:** - Burns caused due to lighting. It is considered as *Asadya*.

- **Indravajragni Dagdha:** - Burns due to thunderbolt.

Management - Patient will not survive if by chance patient survived then he should be treated with *Sneha Abhyanga, Pariseka, Pradeha*.

DISCUSSION

Agni Dagdha is considered as severe form of any trauma which affects the mankind. Which is an important issue in human being because of the disfigurement. Its understanding can be done with burn injuries. *Acharya Sushruta* has explained it under *Itaratha Dagdha* which gives more appropriate meaning.

He had explained 4 types of *Dagdha Vrana* like *Plusta Dagdha, Durdagdha, Samyak Dagdha, Atidagdha* according to its symptoms and it can be correlated to first degree, second degree, third degree, fourth degree burns respectively. Where in first degree burns there will be

only involvement of epidermis of skin and the symptoms like redness of skin, and pain will be there, these symptoms are same as that of *Acharya Sushruta's* explanation of *Vivarnata* and *Daha*. In second degree burns there will be involvement of epidermis and part of dermis. And the symptoms like *Shigra Sphota* that is blister formation, redness is seen. Third degree burns destroy the epidermis and dermis so the skin will be charred even this has been explained by *Sushruta* that the affected area will be like *Tala Phala* (blue black). In Fourth degree burns the deeper structures bones, muscles, tendons are involved and the same has been explained by *Sushruta*. He even explained about scalds that which is caused by hot liquids. *Dhumopahata*, inhalation injury caused due to inhale of smoke. *Ushna Vata Atapa Dagdha* caused due to excessive heat (Sun stroke). *Sheetha Varsha Anila Dagdha*, burns which are caused by excessive cold weather. And burns occurring due to natural calamities lighting, thunderbolt. For all the types of burns he has explained management also elaborately.

CONCLUSION

Acharya Sushruta has elaborately explained about *Dagdha Vrana* and its management, by this it is evident that the burn injuries are common since years and he had treated it successfully. Burns may cause simple to severe consequences. Depending on its cause and symptoms it may require local treatment to immediate emergency medical care. *Acharya Sushruta* has explained different types of burns having different causes and he has elaborately explained about its management also. The explanation which he has given is very scientific and practical even at this era.

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