A CRITICAL STUDY OF DAGDHA VRANA (BURN INJURY) IN AYURVEDIC SYSTEM OF MEDICINE

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ABSTRACT

In Ayurvedic classics use of medicinal, surgical and para surgical modalities for treatment of different ailments are given. Para surgical procedures like Agnikarma, Ksharakarma and Raktamoksan were commonly used by Ayurvedic physicians. During the therapy like Agnikarma there were accidental burn injuries known as Pramad dagdha or Ittartha dagdha. According to the nature of the cause of the burn it is of two types Snigdha and Ruksa. Acharya Sushruta has elaborately described the types, clinical features, treatment principles and Upadrava (complications) of Dagdha vrana. Acharya Charaka has mentioned burn wounds as Agantuja vrana. Dagdha vrana (burn injury) and its management were also found in various treatises of Ayurveda written in different time periods. The paper is a review of types, clinical features and management of the Dagdha vrana (burn injury) found in different Ayurvedic texts.

KEYWORDS: Sushruta, Dagdha Vrana, Burn Injury.

INTRODUCTION

Burn injuries are not new to mankind and it has prevailed since time immemorial. Ayurveda is an ancient science of treatment which has been in practice since 5000 years back and has description of different treatment modalities. The description of types, clinical features, treatments and complications of Dagdha vrana written in Ayurvedics classics are quite similar to burn injury describe in modern medicine.

Dagdha vrana (burn wound) which may be accidental or may be caused during para surgical procedures like Agnikarma. Acharya Sushruta, the pioneer of Indian surgery has vividly described Dagdha vrana in the chapter ‘Agnikarma vidhi adhyaya’ in Sutrasrtana. In Charak Samhita Dagdha vrana is mentioned as Agantuja vrana in the chapter ‘Dvivraniya adhyaya’ of Sutrasrana. In Ashtanga Samgrah, Astanga Hridayaya, Yogaratnakara, and Harita Samhita, Dagdha vrana has been discussed briefly. Bhavaprakash has mentioned treatment according to types of Dagdha vrana.

AIM AND OBJECTIVE OF STUDY

Critical review of Dagdha vrana (burn injury) found in Ayurveda.

MATERIAL AND METHODS OF STUDY

1. For this critical analysis of the literature for burn in Ayurvedic system of medicine textbook of both Brihatrayee and Laghutrayee along with Yogaratnakara, Bhaisajya Ratnavali and Harita Samhita are taken into consideration.

2. The data regarding Dagdha vrana (burn wound) related to etiology, classification, pathophysiology, principles of treatment and management were collected in this study.

All data converted to tabulation for detailed critical analysis. The analytical data compared to each other for critical study.

Review of Literature

Dagdha vrana (burn wound) management was found in different Ayurvedic treatises. The Ayurvedic physicians used surgical and para surgical modalities of treatment in their practices among the different para surgical procedures Ksharakarma, Agnikarma and Raktamoksan were popular and successful in the ancient era. During the process of Agnikarma (therapeutic burn) different types of Ittarthadagdha (accidental injury) happened which are basically classified into Snigdha (wet) and Ruksa (dry)\[1]. In Sushruta Samhita (2nd century AD) details classification, clinical presentation, principles of management and detail management according to types were described in the chapter Agnikarmavidhi adhyaya. In Charak Samhita (2nd century BC) in the context of Agantuja vrana (traumatic wound) Agni Dagdha vrana is mentioned\[14]. Later on, in Asthanga samgraha (500 AD) and Asthanga Hridayaya (8th century AD) followed the basic treatment protocol of
Sushruta Samhita. Keeping intact the basic treatment protocol Sarangadhar, Bhavaprakash and Yogaratnakara describe different kinds of herbal dressing material for burn injury. In 10th-12th century Acharya Harit gave a brief description on burn wounds and its treatment in his book Harit Samhita.

Types of Dagdha vrana

Table 1: Distribution of different types of burn found in Samhitas [3,5,6,7,8,10]

| Samhitas          | Plusta | Tuttha | Tuccha | Isaddagdha | Durdagdha | Madhya dagdha | Samyak dagdha | Ati dagdha |
|-------------------|--------|--------|--------|------------|-----------|---------------|---------------|------------|
| Sushruta Samhita  | +      | -      | -      | -          | +         | -             | -             | +          |
| Charak Samhita    | -      | -      | -      | -          | -         | -             | -             | -          |
| Astanga Hridaya   | -      | -      | +      | -          | -         | +             | -             | +          |
| Astanga Samgraha  | -      | +      | -      | -          | +         | -             | -             | +          |
| Madhav Nidan      | -      | -      | -      | -          | -         | -             | -             | -          |
| Yogaratnakara     | +      | -      | -      | -          | +         | -             | -             | +          |
| Bhavaprakash      | +      | -      | -      | -          | +         | -             | -             | +          |
| Harita Samhita    | -      | -      | -      | +          | -         | -             | +             | +          |

Samprapti of Dagdha Vrana

According to Sushruta Samhita

Rakta agitated by fire and gets aggravated. Pitta also gets aggravated due to similar properties in Virya, Rasa and Dravya with Rakta, that is why there were severe pain, excessive burning, quick appearance of blisters, fever and thirst.[2]

Table 2: Clinical features of Dagdha vrana found in different Ayurvedic treatise

| Clinical features | Sushruta Samhita | Astanga Samgraha | Astanga Hridaya | Yogaratnakara | Harita Samhita |
|-------------------|------------------|------------------|----------------|---------------|---------------|
| **Plusta/ Tuttha/ Tuccha** | Vivarna (discoloration), Plusyateatimatram (severe burning pain)[3] | Vivranam (discoloration) Usyateatimatram (severe burning pain)[7] | Twakvivarna (discoloration of skin), Oshyateathartha (severe burning pain), Nasa sphotasamudbhava samudbhava (absence of blisters)[6] | Vivarnamatram (discoloration)[8] | - |
| **Durdagdha** | Sphota (blisters) Tibra osha, Daha, raga, Paka (severe Pain, redness, suppuration) Vedanachirashya Upasamyati (pain lasting for long duration)[3] | Sphota (blisters), Dahativra osha (severe burning pain) Daha (burning and ruja (pain), Chirasayupasamyati (require long time to heal)[7] | Sphota (blisters), Dahativra osha (severe burning pain)[6] | Sphota (blisters), Tiwradaha ragapaka (Severe burning sensation, redness, suppuration) Vedanachirasau samyati (pain lasting for long duration)[8] | - |
### Samyak dagdha
- Anavagraham, Pakwatalaphalavarna (resembles like colour of ripe palm tree fruit), Susamsthitam (neither elevated nor depressed)

### Pakwatalaphalavarna
- Sabdhallasikaanvitam (emergence of cracking sound accompanied with lymph), Pakwatalakapotwa (colour resembling a ripe tala fruit) Suroham (good healing), Na ativedana (not much severe pain)

### Nirdosha, of 4 Types

| Samyak dagdha | Anavagraham, Pakwatalaphalavarna (resembles like colour of ripe palm tree fruit), Susamsthitam (neither elevated nor depressed) |
|--------------|--------------------------------------------------------------------------------------------------------------------------|
| Atidagdha    | Mamsaaavalamba, Gatravislesa (sloughing out of tissues), Sira snayu sandhi asthi vyapadatimtram (injuries of vessels, ligaments, joints, and bones), Jwar (fever), Daha (burning sensation), Pipasa (thirst), Murcha (fainting), Chirenuhathi (delayed wound healing) |

### Ugraruja
- Mamsaavalamban (sloughing out), Dhumayan (feeling of hot smoke coming out), Mamsapralamban (muscles coung out), Sirayapad (disorder of vessels), Gambhirvanata (wound become deeper), Jwar (fever), Daha (burning sensation), Trishna (thirst), Murcha (fainting), Shonitaatipravriti, Upadrava (profuse bleeding and its complication, Krichenaruhati, Rurhaesavivarana (wound heals with difficulty and discolouration even after healing).

### Treatment of Dagdha vrana

| Types | Samhitas |
|-------|----------|
| Pittajadaha | - |

### Table 3: Treatment principle of Dagdha vrana

| Types | Samhitas |
|-------|----------|
| Plusta /Tuttha/ Tucha | Ushna kriya and Pratapan[^4^] |
| Dur dagdha | Sita kriya and Ushna |

[^4^]: Available online at: [http://ijapr.in](http://ijapr.in)

86
The details and etiological factors described in *Sushruta Samhita* were followed in *Astanga Samgraha* and *Astanga Hridaya*. In *Charak Samhita* only description found was *Dagdha vrana* is of traumatic origin. All the authors classify *Dagdha vrana* depending upon the degree of burn. *Tuttha* in *Astanga Hridaya* and *Tuccha* in *Astanga Samgraha* were mentioned in place of *Plusta* and the rest types of *Dagdha vrana* were of similar name. Almost similar description of clinical features of *Plusta* /Tuttha/ *Tuccha*, *Durdagdha*, *Samyakdagdha* and *Atidagdha* were found in *Sushruta Samhita*, *Astanga Hridaya*, *Astanga Sangaraha* and *Yogaratnakara* and may be correlated with 1°, 2°, 3°, and 4° degree of burn in modern medical science. *Harita Samhita* has given less description of *Dagdha vrana*, and has not clearly described the clinical features of *Dagdha vrana*. Treatment principles were also not similar with *Sushruta Samhita*. Treatment principles for four types of burns as mentioned are almost similar in all Ayurvedic classics except little modifications in local applications.

**CONCLUSION**

The concept of *Dagdha vrana* (burn wound) was described in Ayurvedic treatise mostly dominated by *Sushruta Samhita*, the pioneer book of Indian surgery. There is similarity regarding etiology, clinical features, degree of burn with description of burn injury of modern system of medicine.

**REFERENCES**

1. Priva Vrat Sharma, Sushruta Samhita with English translation of text and Dalhan's commentary along with critical notes, Volume I (Chaukhamba Visvabharti, Varanasi); Reprint 2013; Sutrasthana 12/15; p.128.
2. Priva Vrat Sharma, Sushruta Samhita with English translation of text and Dalhan's commentary along with critical notes, Volume I (Chaukhamba Visvabharti, Varanasi); Reprint 2013; Sutrasthana 12/17-18;p.129.
3. Priva Vrat Sharma, Sushruta Samhita with English translation of text and Dalhan's commentary along with critical notes, Volume I (Chaukhamba Visvabharti, Varanasi); Reprint 2013; Sutrasthana 12/16; p.129.
4. Dr.Kewal Krishna Thakkaral, Sushruta Samhita (Shri Dalhan Acharya kiNibandha Sangrahavayakhyatata Shri Gaydas Acharya ki Nyaya Chandrika Vyakhyaa ka hindianuvad) Volume- I; Chaukhamba Aurantalia, Varanasi; reprint2016; Sutrasthana 12/19-26:p.126-128.
5. Prof.K.R.Srikantha Murthy, Bhavamisra of Bhavamisra (text, English translation, notes, appendix and index) Volume 2; Edition: Third 2005; Chaukhamba Krishnadas Academy, Varanasi; Madhya Kanda, section 2 part 3 chapter 47/100-109:p.566.

6. Prof.K.R.Srikantha Murthy, Vagbhata’s Astanga Hridaya (text, English translation, notes, appendix and index); Volume I; Chaukhamba Krishnadas Academy; Reprint 2004; Sutrastrhana 30/45-48;p.351.

7. Prof.K.R.Srikantha Murthy, Astanga Samgraha of Vagbhata (text,English translation, notes, appendix and index); Volume I; Sixth Edition 2002; Chaukhamba Orientalia, Varanasi; Sutrastrhana 40/6; p. 629.

8. Vaidya Lakshmipati Sastr, Yogaratnakara with 'Vidyotini’ Hindi commentary; Chaukhamba Prakashan Uttara Ardha; AgniDagdha vrana Nidan; p.185.

9. Vaidya Lakshmipati Sastr, Yogaratnakara with 'Vidyotini’ Hindi commentary; Chaukhamba Prakashan; Uttara Ardha; AgniDagdha vrana chiktitsa/ 1-4; p.186.

10. Vaidhya Jayamini Pandey, Harita Samhita text with 'Nirmala' hindi commentary; First Edition 2010; Chaukhamba Viswabharti, Varanasi; Trityasthana 58/1-5;p.501.

11. Vaidhya Jayamini Pandey, Harita Samhita text with 'Nirmala' hindi commentary; First Edition 2010; Chaukhamba Viswabharti, Varanasi; Trityasthana 58/5-7;p.502.

12. Prof.K.R.Srikantha Murthy, Vagbhata’s Astanga Hridaya (text, English translation, notes, appendix and index) Volume I; Chaukhamba Krishnadas Academy; Reprint 2004; Sutrastrhana 30/49-52;p.351-352.

13. Prof.K.R.Srikantha Murthy, Astanga Samgraha of Vagbhata (text, English translation, notes, appendix and index); Volume I; Sixth Edition 2002; Chaukhamba Orientalia, Varanasi; Sutrastrhana 40/7-13;p.629-630.

14. Pt. Kasinatha Sastr; Dr.Gorakha Nath Chaturvedi; Caraka Samhita of Agnivesa Revised by Carak and Drdhabala with introduction by Vaidya-Samrata Sri Satya Narayan Sastr Padmabhusana with elaborated Vidyotini Hindi Commentary;Part 2; Reprint 2009; Bharati Academy, Varanasi; Chikitsasthana 25/7-8:p.698.

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