

## NOTABLE MODIFICATIONS OF SUSHRUT SAMHITA BY DALHANA

### Review article

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#### Abstract

*Sushruta*, the father of surgery gave *Sushrut Samhita* to his followers. The *Sushrut Samhita* gives simple, precise, logical and practical knowledge. Available commentary on *Sushrut Samhita* is *Nibandhasangraha* which is written by *Dalhana* who gave reasoning and description about some unsolved puzzles in *Sushrut Samhita*. This commentary is available in Sanskrit language which is unrecognized by common *Ayurveda* scholars and researchers. Although it is very difficult to understand and translate the *Samhita* in an easy language it will be a boon to all the *Ayurveda* scholars if we can understand the *Dalhan's* explanation of *Sushruta's* view. In this article we shall try to understand and interpret the knowledge of *Sushruta* and *Dalhana* from *Sutrasthan Adhyaya no. 1 to 10* in parallel to western surgical knowledge to get a better understanding of basic principles of ancient and western surgical practice.

**Keywords:** *Sushrut Samhita, Nibandhasangraha, Shalya, Mala, Vrana, Shadvidh Pariksha.*

#### Introduction

*Sushruta* is the father of surgery and the greatest surgeon of ancient period. He had kept a sea of surgical knowledge in the form of *Sushrut Samhita* to his followers. *Sushrut Samhita*, which describes the ancient tradition of surgery in Indian medicine is considered as one of the most brilliant gems in Indian medical literature. This treatise contains detailed descriptions of teaching and practice of the great ancient surgeon *Sushruta* which has considerable surgical relevance even today. *Sushrut Samhita*, contains major surgical text of *Veda's* and is considered to be the most advance literature of surgical practices of its time. It is a simple,

easily understandable, logical and practically useful literature. Many commentaries are written on *Sushrut Samhita* by different commentators. Out of which some are available partially and some are not. Only *Dalhana's Nibandhasangraha* is completely available today.

*Dalhana* was the follower of *Sushrut Samhita* who was having detailed knowledge of multiple sciences. He added cream knowledge of other *Samhita's* in his commentary. *Nibandhasangraha* is an elaborate description of precepts and practices of surgical tradition known at their time. He furnishes quotation from many other treatise on surgery and therefore both academically and historically significant. He had detailed knowledge about *Sanskrit* language and was on the topmost position in surgical profession at that time. *Dalhana's* commentary *Nibandhasangraha* has not seen the light of day till date. It is used by only a few research workers and some

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philosophers and very rarely used by a common scholar of *Ayurveda*. This commentary, therefore is not in the limelight due to the *Sanskrit* language which is a bit difficult to understand and translate for a common *Ayurveda* scholar. However, if understood and translated in an easier language his commentary “*Nibandhasangraha*” will prove to be a boon to every *Ayurveda* scholar.

So this review article presents a historical window of *Dalhana*'s modifications over *Sushrut Samhita*. It is to constitute a good doctor who have knowledge of *Samhita* and the commentary constitutes an integral part. The *Samhita* without the commentary is like a bird with only one wing. I admit that I have nothing much to add as original matter except the concept of basic common plan given by *Dalhana* over *Sushrut Samhita* related to *Sutrasthan Adhyaya no. 1 to 10*.

### **Aims and Objectives:**

1. To study the modifications of *Dalhana* over the *Sushrut Samhita*.
2. To evolve a logical scheme given by *Dalhana*.
3. To simplify the basic surgical approaches.
4. To compile all the basic concepts at a glance.
5. To study the scientific reasoning of *Dalhana* over the basic principles of clinical surgery.
6. To study the western surgical knowledge in parallel with ancient basic principles for better understanding.
7. To focus and enlighten the path based on *Dalhana*'s principles for new research scholars.

### **Materials and Methods**

Mentioned below are books studied line to line and chapter to chapter for present review of literature as these books

are considered as most authentic classics in ancient and western surgical practice : *Sushrut Samhita*, *Sushrut* commentary of *Dalhana* ‘*Nibandhasangraha*’, A system of surgical diagnosis, A concise textbook of surgery, A practical guide to operative surgery.

### ***Dalhana*'s Modifications**

*Sushrutacharya* had defined *Shalyatantra* as the branch which describes methods of removal of different kinds of foreign objects from the body like grass, wood, stone, metal, bone, hair, nails, pus exudation.(1) In addition to these foreign bodies, the commentator of *Sushrut Samhita*, *Dalhanacharya* has mentioned *Mala* also as a foreign body. In western surgical practice it is also observed that fecal material is one of the cause of obstruction. For example in obstructive acute appendicitis(2) and also in chronic constipation hard fecal material obstruct the lumen of intestine(3) due to which patient neither pass feces nor flatus and it requires removal of feces with various methods. From above 2 examples *Mala* is mentioned as foreign body in western surgical practice. It means *Dalhana* had keen observations in surgical practice and therefore he mentioned *Mala* as a *Shalya* (foreign body) in definition of *Shalyatantra* which requires *Nirharana* (extraction).

Tridosha Vata, Pitta and Kapha are the prime constituents of our body. In respect with *Shalyatantra*, *Sushruta* mentioned *Rakta* as an additional 4th *Dosha*(4). The commentator *Dalhana* explained the reason behind its acceptance as *Shalyatantra* is a branch which is more concerned with *Vrana*. He asserts that in the pathogenesis of *Vrana*, *Rakta* is a main constituent . *Dalhana* , therefore also supported *Rakta* as a 4th *Dosha*. If we compare this reasoning with western surgical discipline, it can be observed that blood and its constituents like haemoglobin, blood sugar level, serum

bilirubin etc. play an important role in wound healing(5). When these constituents get abnormal they will be the prime cause of pathogenesis. This consideration of *Rakta* as a 4th *Dosha* in accordance with *Shalyatantra* is an apt example of the broad outlook that *Dalhana* had, thus making a great value addition to *Sushruta's* contributions.

*Sushruta* mentioned the methods of controlling diseases that are *Samshodhana*, *Samshamana*, *Aahara* and *Vihara*. To add to this, *Dalhana* explained two types of *Samshodhana* as *Bahyashraya* and *Abhyantarashraya*(6). *Dalhana* also enlisted *Shastra*, *Kshara*, *Agni* and *Pralepa* under the heading of *Bahyashraya Samshodhana* and *Vamana*, *Virechana*, *Aasthapana*, *Raktamokshana* under the heading of *Abhyantarashraya Samshodhana*. He further enlisted *Aalep*, *Parishek*, *Avagaha*, *Abhyanga*, *Shirobasti*, *Kavalagraha* and *Gandusha* under the heading of *Bahyashraya Samshamana* and *Pachana*, *Lekhana*, *Bruhan*, *Rasayana*, *Vajikaran* etc. under *Abhyantarashraya Samshaman*. From the above description we can say that *Dalhana* gives advancement on *Sushruta's* quotation to understand the treatment modalities of *Shalyatantra*.

*Sushruta* mentioned *Vrana Dhoopana* by different *Dhoopana Dravyas* after *Shodhana* of *Vrana*. To add to this, *Dalhana* said that not only *Vrana* but also the *Dhoopana* of patient's clothes, beds, pillows, bed sheets, wards should be done(7). In western surgical practice we are using 2 methods i.e. aseptic and antiseptic(8) to prevent chances of infection. We know that aseptic methods are always better as compared to antiseptic methods. From the above *Shalyatantra* references it can therefore be observed that *Sushruta* focused on antiseptic methods whereas *Dalhana* throws light on antiseptic as well as aseptic precautions.

*Sushruta* mentioned light massage over *Hrudayadi Marmasthana* with

remaining *Ghee* after *Dhoopana* to restore the functions of body. *Dalhana* gives the reason behind it stating that "Massage helps to achieve proper functioning of vital parts and decreases uneasiness and anxiety of patient(9). From *Dalhana's* above explanation, *Abhyanga* can be advised to increase blood circulation of vital parts and to relieve uneasiness and anxiety of patient.

*Sushruta* mentioned five characteristics of *Shastrakarmajanya Vrana* as *Aayata*, *Vishal*, *Suvibhakti*, *Nirashraya* and *Praptakalakra*(10). *Dalhana* elaborated the character *Nirashraya* as not involving any vital structure like *Marma*, *Dhamani*(artery), *Sira*(vein), *Nadi*(nerve), *Lasika*(lymphatics) etc.

In western surgical practice it is described that surgical incision should be parallel to those vital structures(11) to prevent complications like bleeding, lymphadenoma and nerve deformities. From the above explanation it is clear that *Dalhana's* view was more practical towards safe surgical procedures.

*Sushruta* mentioned that physician should remove bandage after 3 days in *Hemant*, *Shishira* and *Vasanta rhotu* and after 2 days in *Sharad Grishma* and *Varsha Rhotu*(12). *Dalhana* thought more deeply in relation to bandaging and mentioned that bandage should be removed and rebandage of the wound be done 2 times in a day in case of *Pittaja Vrana* in hot climate. He shows frequency of bandaging to avoid the chances of infection by removing previous soiled bandage. He also mentioned that chances of putrefication are more due to hot climate in *Sharad Grishma* and *Varsha Rhotu*. In addition to support this explanation we can say that the *Bala*(immunity) is *Heen*(low) in these three season so chances of infection rate is high. Also in these *Rhotus specifically in Varsha Rhotu* wounds are very vulnerable for infection. In western surgical practice it is observed that we

regularly and frequently do the dressing over infected and profuse discharging wound whereas dressing or bandaging is done on alternate days or less frequently in healthy granulated wound or less discharging wound.

*Sushrutacharya* mentioned different types of *Yantra* which are commonly prepared from metal or in their absence by those similar to it(13). To add to this *Dalhana* explains substitute like *Danta*, *Shrunga*, wood etc. *Sushruta* mentioned *Alabu* and *Shrunga* are useful in *Raktamokshana* procedure but it is strange to note that he does not furnish any details about it. *Dalhana* on the other hand gives details about the shape and size of *Shrunga* and *Alabu* and elaborating that *Shrunga* is 7 *Angula* broad, base is broad as *Angushthamula* and mouth opening must be equal to *Mudaga*. *Alabu* is 8 *Angula* broad, 4 *Angula* long, narrow mouth and coated with black soil(14).

*Sushruta* described *Shadavidha Pariksha* (*Shabda*, *Sparsha*, *Roopa*, *Rasa*, *Gandha*, *Prashna*) and also explained how to perform it to get detail history and thoroughly examination of disease from patient. *Dalhana*, the commentator also added that when any new disease co-exists and which is not included in literature (*Anukta Vyadhi*) can also be examined with the help of above mention *Shadavidhpariksha*(15). It is observed that in today's western medical practice these *Shadavidhpariksha* are found to be most important tool for diagnosis and so training of good doctor is therefore prepare him to use comprehensively. The above five senses by utilizing his ears, eyes, nose, hands, tongue, and interrogation(16) in a systematic way to gather useful history and physical science for arriving at correct diagnosis. We all are blessed with god gifted five senses which are our basic tools. From above explanation we came across the broad view of *Sushruta* and *Dalhana* about examination of patient and credit goes to both of them for explaining

the methods of examination which is most important part in the diagnosis and prognosis of patient.

*Sushruta* mentioned that even easily curable diseases are difficult to be cured in kings, orthodox people, aged people, women, children etc.(17) *Dalhana* explained the reasoning behind it thus showing his keen clinical observation about patient and his diseases. According to him, children, elder people and frightful people cannot tolerate the *Samshodhana* procedure and high potency medicine. Due to shy nature of women they always relents the urge of *Mala*, *Mutra* and also refrain from giving proper history about the disease. Addicted people cannot follow the *Pathya Apathya*. So the *Sukhasadhyha Vyadhi* becomes *Dushchikitsya*.

### Conclusion

There is no doubt about *Sushruta's*, the father of ancient surgery has made notable contributions to the field of surgery. But the important and critically significant modifications of *Dalhana* the follower of *Sushrut samhita* was also a great clinician having knowledge of multiple sciences and who had studied the *Samhita's* from different angles to give the answers of many queries arising in the mind of a reader while reading the *Sushrut Samhita*.

Also it is concluded that this knowledge is very beneficial to every student and practitioner today and forever. Present article is a single candle of light which will help to give light from candle to candle and one day there will be brightness as like the sunlight in the form of knowledge for next generation.

### References

1. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi, 2003*, pg.no. 3

2. S.Das;a concise textbook of surgery; s. Das publication, Calcutta 4th edition, 2005, pg.no. 1003
3. S.Das;a concise textbook of surgery; s. Das publication, Calcutta 4th edition, 2005, pg.no. 982-983.
4. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 6
5. S.Das;a concise textbook of surgery; s. Das publication, Calcutta 4th edition, 2005, pg.no. 6-7.
6. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 7
7. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 21
8. S.Das;a practical guide to operative surgery; s. Das publication, Calcutta 4th edition, 1999, pg.no. 17.
9. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 21
10. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 20
11. S.Das;a practical guide to operative surgery; s. Das publication, Calcutta 4th edition, 1999, pg.no. 23
12. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 23
13. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 31
14. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 56
15. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 43
16. Prof. T. N. Patel; a system of surgical diagnosis; Jaypee brothers medical publishers Ltd. New Delhi, 3rd edition, 1998; pg.no.1
17. Vd. Yadavji Trikamji Acharya; *Sushrut Samhita of Sushruta* with commentary of *Dalhanacharya, chaukhamba surbharati prakashana, Varanasi,2003*, pg.no. 44

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