



Received: 23-05-2024  
Accepted: 03-07-2024

## International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

### Time of Administration of Medicine as said by Susruta

**Dr. Dilip Kr Goswami**

Department of Agadatantra (Toxicology, Forensic Medicine and Medical Jurisprudence), Sri Sri College of Ayurvedic Science and Research Hospital, Sri Sri University, Cuttack, Odisha, India

Corresponding Author: **Dr. Dilip Kr Goswami**

#### Abstract

Medicine can be considered as the most important tool for treatment. Expertise of a physician is dependant upon the factors like accuracy in diagnosis, assessment of the state of the patient (physical constituent, habit, tolerability etc.), selection of medicine, application of medicine with special reference to form and time which is followed by assessment of the result. All these mentioned factors are important to attain success in treatment. Wrong decision on any one of

these factors causes failure of the effort of the physician. Hence an illustrative discussion on the time of medicine administration (Aushadhakala) is felt important. Though all the Ayurvedic scholars have thrown light on the topic then also, with the aim to avoid unexpected length of the article, only the concept of Susruta is considered under the perview of the present discussion.

**Keywords:** Important Tool for Treatment, To Attain Success in Treatment, Time of Medicine Administration, Susruta

#### Introduction

A physician is a special individual in the society whom suffering people trust a lot and expects relief from suffering. An ideal physician, when a patient comes to him, has to follow the steps like – (1)Diagnosis after thorough history, examination and investigation, (2)Assessment of the condition of the patient with special reference to physical condition, state of the disease, tolerance /intolerance to substances, procedures etc. (3)Selection of medicine which is to be followed by (4)Advice of medicine for which fixation of appropriate dosage (matra), vehicle (anupana) and time of use of medicine (Aushadhakala). Combination of all in right form can only give success to the physician.

Aushadhakala (time of administration of medicine) is an important determinant factor of successful treatment. It determines the efficacy of the medicine (aushadha) as tolerability, digestion, expected target of application of the medicine are dependant upon the time of taking the medicine. A very good medicine may even not be able to give expected benefit if will not be taken at proper time.

Considering the facts related with the time of use of medicine (Aushadhakala) the Aurvedic Scholars, before thousands of years, discussed in detail on the topic and express their opinions very nicely. Here a discussion on Aushadhakala as per Susruta, the father of Indian Surgery, is expected to incorporate with the aim to create awareness and guide towards success in treatment.

#### Aims and Objectives

The present is a literary study based on the concept of Susruta on the topic conducted with the following aims and objectives:

1. To study the concept of Susruta on the time of administration of medicine.
2. To give an effort to compare the concept of Susruta on the topic with the modern concepts.
3. To evaluate the concept of Susruta on the topic in modern concept.
4. To arrange the findings of the study in the form of a scientific article.
5. To give the findings the shape of an article acceptable by the scientific forum and finally to send to a popular indexed peer reviewed journal for publication to facilitate the scientific forum to appraise and do further study and research.

## Materials and Methods

The present study was conducted by following the below mentioned method using the materials as mentioned below:

1. Susruta Samhita was studied at the Central Library, Sri Sri College of Ayurvedic Science and Research Hospital, Sri Sri University, Cuttack, Odisha, India.
2. Consulted with the internet sources.
3. The descriptions on the techniques of use of medicine, specially in reference to time of administration were collected from Susruta Samhita as well as from internet sources.
4. The observations were discussed accordingly and effort applied to justify.
5. Ultimately Summary, Conclusion and References were added and in the form of an scientific article was sent to a peer reviewed popular journal for publication expecting wide circulation and appraisal of the scientific forum specially of the Ayurvedic concepts on time of medicine administration.

## Observation and Result

The study revealed the following observations and results -

**[A] Opinion of Susruta:** Ten times for medicine administration (Dasha aushadhakala) is mentioned as follows –(1)Abhakta, (2)Pragbhakta, (3)Adhobhakta, (4)Madhye bhakta, (5)Antarabhakta, (6)Sabhakta, (7)Samudga, (8)Muhurmuhu, (9)Grasa, (10)Grasantara<sup>[1]</sup>.

1. **ABHAKTA (in empty stomach):** Veeryadhika (becomes of more potency), hanti amayang asangsayam (has the efficacy to cure the diseases). If taking medicine at this time by balaka (children), vridha (old persons), stree (female) and sukumara purusha (the person who is intolerable to strong medicines, procedures etc.) It can cause glani and balakshaya (weakness)<sup>[2]</sup>.
2. **PRAGBHAKTA (taking medicine before food):** Shighra bipakam upayati (digests quickly), balang na hingsati (not affects the strength), na muhurbadanat nireti (does not expel through mouth). vridha, sishu, bhiru and Krishna purusha (old persons, children, coward and emaciated persons) should be given medicine at this time<sup>[3]</sup>. This medicine helps in curing the urdhajatrugata roga(diseases above the clavicle – diseases of the ear, nose and throat) and gives bala (strength)<sup>[4]</sup>.
3. **ADHOBHAKTA (taking medicine after food)**<sup>[5]</sup>.
4. **MADHYE BHAKTA (taking medicine during intake of food):** The medicine taken during food cures koshagata roga (diseases of the stomach, intestines etc.) as it remains there for a long time<sup>[6]</sup>.
5. **ANTARABHAKTA (taking medicine between two meals)**<sup>[7]</sup>.
6. **SABHAKTA (taking medicine with food):** Observing the bala and abala (strength / weakness) of the patient, in the females, weak persons, who does not want to take medicine, children and old persons should take medicine at this time<sup>[8]</sup>. Taking medicine at this time is hridya (accepted by the heart-mind), manobalakara (gives strength to mind), Deepana (increases digestive capacity) and sada pathya (always helpful to the user)<sup>[9]</sup>.
7. **SAMUDGA (taking medicine at the beginning and end of food):** When dosha moves towards both

upwards and downwards then medicine should be administered at this time<sup>[10]</sup>.

8. **MUHURMUHU (taking medicine frequently in empty stomach or full stomach):** Indicated in severe type of swasa (breathing difficulty), kasa (cough), hikka (hicough) and vama (vomiting)<sup>[11]</sup>.
9. **GRASA (taking medicine with bolus of food)**<sup>[12]</sup>. Indicated in the patients with durbalagni (weak digestive power). Medicine administered at this time is deepaniya (increases digestive power). Bajeeekarana aushadhi (aphrodisiac medicines) are also advised to administer at this time<sup>[13]</sup>.
10. **GRASANTARA (taking food in between two bolus of food)**<sup>[14]</sup>. Vamaniya dhooma (smoke therapy to induce emesis) should be used at this time. In Swasaroga (breathing problems – Asthma) also medicine is advised to administer at this time<sup>[15]</sup>.

## [B] Modern concepts on time of administration of medicine

The following observations were noted from the search in the internet:

1. The response to a medicine by the body depends upon whether it is taken during the day or at night. Taking medications at specific time could help increase their effectiveness and reduce unwanted side effects<sup>[16]</sup>.
2. Some medicines need to be taken in empty stomach as food or drink can affect how they work<sup>[17]</sup>.
3. Some drugs are time sensitive due to a number of causes specially for ensuring effectiveness and minimizing negative side effects<sup>[18]</sup>.
4. Some examples of time - sensitive medications – (1)medicines used for birth control (use at the same time daily), (2)medicines continued for the conditions like – hypertension, depression, diabetes, epilepsy, allergies, parkinson's disease, Cholesterol etc.<sup>[19]</sup>.
5. Taking medicine on time is essential to make sure that the body has an effective amount of the drug at all times<sup>[20]</sup>.

## Discussion

Observations of the study can be discussed as follows:

1. Prescribing medicines specifying the time of intake is important to get a number of benefits. It helps in maintenance of regularity in taking the medicine by the patient, to make the medicine palatable, to get the optimum benefit of the medication and many more. Both the Ayurvedic and Modern system of medicine agree and discuss on the point elaborately.
2. Susruta says that, if a medicine is used in empty stomach (abhakta Avastha) it becomes of more potency (veeryadhika) and can cure diseases undoubtedly (hanti amayang asangsayam). The contra indications of using medicine at this time are stated to be specially related with the age of the patient. Children, old persons, females and persons intolerable to strong medicines, procedures etc. are advised not to use medicine at this time. Taking medicine at this time by these patients may cause loss of strength (glani and balakshaya). The statement can be justified easily with the concept of apurna dhatu Avastha (undeveloped state of the body constituents) in children, dhatukshaya (gradual loss of the body constituents) in old age, weak nature of the

- females and persons with intolerance to strong medicines, therapeutic procedures etc.
3. If medicine is taken before food then it becomes digested quickly and easily, causes no effect on the strength of the user and does not expelled out through mouth. Indications of using medicine at this time are – old persons, children, the persons who fears more, emaciated persons and persons suffering from the diseases of the parts above the clavicle and also when strength is expected. Such use is justified by the scholar nicely.
  4. Taking medicine after food is preferred for the patients who can not take medicine in empty stomach, the medicine is of more potency and the person is weak by physical constitution or mental strength.
  5. Medicine is advised to give during food to the patients who are suffering from diseases of koshtha (like stomach, intestine etc.). The justification for the advice is given that, in such administration medicine remains in the organ for long time and hence works efficiently. The present search in the modern medicine source does not reveal the advice to administer medicine with food.
  6. If medicine is administered at the interval between two meals it will act like administering in empty stomach. The difference between empty stomach and between two meals is that empty stomach indicates about 6 hours after food (when the stomach becomes completely empty due to passage of food to the next parts of the Gastro-intestinal Tract) whereas between two meals indicates generally after 3/4 hours of taking the previous meal. Mention of this type of medicine administration is also not revealed in modern medicine.
  7. If a medicine is mixed with food and taken then the patient will not get the smell, taste etc. of it and even sometimes may not be able to guess that he/she is taking medicine. It also helps in reducing the potency of the medicine. Hence becomes easy to administer in children, old man, female, weak person even the person who are not willing to take medicine. Medicine taken following this technique of administration is said to be good in many aspects. This administration time is also seemed to be not mentioned in the modern medicine.
  8. Taking medicine once at the beginning of the food and once at the end is said to be beneficial when the Dosha moves in both directions (upwards and downwards) (SAMUDGA). This time for medicine administration is also not found in the modern medicine.
  9. Administration of medicine frequently irrespective of empty and full stomach) is advised to use in the diseases like swasa (breathing problems like Asthma), kasa (cough), hikka (hiccough), vamana (vomiting) etc. The justification in favour of this medicine administration time is not explained by the scholar. But it can be thought that, since these are the problems with repetition use of medicine should be frequent. This medicine administration time is also not found in the modern medicine during the present search.
  10. When medicine is administered with bolus of food then it is said to have the efficacy to increase digestive capacity and also acts as aphrodisiac. The justification of this advice is not mentioned by Susruta.
  11. Medicine is advised to administer in between two bolus of food in the patients of breathing difficulty (swasaroga) and in case of application of smoke therapy

aimed to induce emesis. Susruta has not explained this administration time also in detail.

12. In modern medicine the medicine administration time is determined depending upon its absorption, half life, interaction with food or other medicines, aim of administration etc. Some such examples – administration of antibiotic like Azithromycin before food, some antibiotics are to be used at 6hours / 8hours / 12 hours /24 hours interval to get expected efficacy, enzymes are usually used before food to get appetizer effect, in case of discomfort after taking food medicine is given after food etc.
13. The description of “DASHA AUSHADHAKALA” (ten times for administration of medicine) is seemed to have no simulation. It seems that, Susruta gives importance on the time of administration of medicine to get optimum benefit as on other factors. Such in depth observation can be considered important and valuable for the benefit not only of the physicians but also of the suffering people.

### Summary

As summary of the study the following points can be stated-

1. The time of administration of medicine is considered as an important factor for success of a physician in treatment by the great Indian surgeon “SUSRUTA”. Susruta discuss in detail on “DASHA AUSHADHAKALA” with priority and importance. This reflects the depth and wideness of the knowledge and observation of the scholar.
2. Susruta has explained the justification in terms of indications and benefits of following the rules related to administration of medicine. In some points he remained silent. No explanation in favour of use of medicine at some time is not given. In these points more study and observation is needed.
3. In modern medicine also there is discussion on the time of administration of medicine. But the discussion seems to be brief in comparison to the Susruta’s one.

### Conclusion

To conclude the study it can be said that, administration of medicine at proper time is an important key for success of a physician. Susruta was aware of the fact and hence conducted extensive elaborate study, observation and research. But the explanation on this point are too brief to understand. Hence more study and research on the “DASHA AUSHADHAKALA” mentioned by Susruta can be considered to be one of the preferred interest of the researchers of present time.

### References

1. Thakral Keval Krishna. Maharshina Susrutena Birachita Susruta Samhita. Part III, Edition -reprint, 2019, Uttaratantram, Chapter 64, Sloka 65.
2. Thakral Keval Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition-reprint, 2019, Uttaratantram, Chapter 64, Sloka 66, 67.
3. Thakral Keval Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttaratantram, Chapter 64, Sloka 68, 69.
4. Thakral Keval Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttaratantram, Chapter 64, Sloka72.

5. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 70.
6. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 71.72.
7. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 73.
8. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 74.
9. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 75.
10. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 76,77.
11. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 78.79.
12. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 80.
13. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 82.
14. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 81.
15. Thakral Kegal Krishna. Maharshina Susrutena Birachita Susruta Samhita, Part III, Edition -reprint, 2019, Uttarantram, Chapter 64, Sloka 82.
16. Source internet accessed on 7<sup>th</sup> July, 2024, 8:39 pm.
17. Source - internet accessed on 7<sup>th</sup> July, 2024, 8:46 pm.
18. Source - internet accessed on 7<sup>th</sup> July, 2024, 8:46 pm.
19. <https://allzohealth.com>>resources accessed on 7<sup>th</sup> July, 2024, 8:51 pm)[20] Source – internet accessed on 7<sup>th</sup> July, 2024: 9:44 pm).
20. Source internet accessed on 7<sup>th</sup> July, 2024, 9:00 pm.