



SIGNIFICANCE OF AUSHADA SEVANA KALA AND ITS CLINICAL INTERPRETATION

Murari Vaishnavi*¹ and Abdul Khader²

¹PG Scholar, Department of Kayachikitsa, Sri Khalabayraweshwara Swamy Ayurvedic Medical College Hospital and Research Center, India.

²Professor, Department of Kayachikitsa, Sri Khalabayraweshwara Swamy Ayurvedic Medical College Hospital and Research Center, India.



*Corresponding Author: Murari Vaishnavi

PG Scholar, Department of Kayachikitsa, Sri Khalabayraweshwara Swamy Ayurvedic Medical College Hospital and Research Center, India.

Article Received on 02/11/2024

Article Revised on /12/2024

Article Accepted on 23/12/2024

ABSTRACT

Ayurveda has given importance to trisutra. Trisutra includes hetu, linga, aushada. Aushada is one of the chikitsa chatushpada. For maximum efficacy of aushada it has to be administered at proper time, hence the concept aushada sevana kala has to be taken into consideration. Kala is causative factor for all effects. kala is categorized as nityaga and awasthika kala.^[4] Aushada sevana kala comes under awasthika kala. Kala for therapeutic management is considered as Shad avekshana kala and Aushada sevana kala. Aushada sevana kala is explained in relation to roga and rogi bala, veerya of drug, doshic rythums, involvement of dosha in vyadhi, ahara jeerna lakshans and various other factors. eventhough this unique concept has described in ayurveda, only few physcians practice it. Hence this present article highlight the importance of aushada sevana kala in chikista, its indication and contraindications and how to understand with modern concepts.

KEYWORDS: *Aushada sevana kala, Bheshaja, Chronobiology.*

INTRODUCTION

Aushadha means which holds potency, *Sevana* means to consume, *Kala* means time. *Aushada sevana kala* means time at which of drug can be administered. *Bhaishajya kala*, *aushadha kala*, *aushadhavekshan kala*, *aushadha avcharan kala*, *agad kaala*, *bhaishajya kala*, *Bhaishajya graham kala* are synonyms of Aushada sevana kala. Acharya Charaka^[1], Sushruta^[2], Vagbhata^[3], Kashyapa^[4] has described 10 Aushadha sevana kalas. Ashtanga sangrah^[5] has described 11 Aushadha sevana kalas. Acharya Sharangadhara^[6] has described 5 Aushadha sevana kalas.

I. Abhakta: *Abhakta* means administration of *aushadha* alone. Synonyms of *abhakta* are *niranna*, *ananna*, *nirbhukta*, *suryodaya jate*, *buktadu* and they are named on *kala* in realtion to food. charaka mentioned *niranna* under *buktadu*. *Niranna* is not mentioned in *charakasamhita* separately. In *abhakta*, *bheshaja* should be administered 1yama[3hrs] after sunrise^[7], after assessing digestion of previous night meal, then after assessing *aushadha jeerna lakshanas*^[8], next *annakala* should be admisiterd. *Chakrapani* has commented that *bheshaja* should be given before breakfast in the morning and then before food in day. Hemadri has

commented that *bheshaja* should be given in *kapha udreka gata kaala*. *Kapha kala* is one third part of day, the later half is one third part is *kapha udreka gata kaala* and the medicine is aministered when *kostha* is deviod of *kapha*.

Indications: *Balavan rogi*, *Balavan vyadhi*, *panchavidha kashaya kalpanas*, in *pitta* and *kapha udreka gata kala vanna* and *virechna* drugs has to be administered, for *lekhanartha*, for *krushikaranartha*, in *medhorogas*, for *danthadawanartha* and in *kapha rogas*.

Contraindications: To avoid *glani* and *bala kshaya* it is contraindicated in children, aged, women, who cannot withstand the potency of medicine. In these person medicine is advised to take along with with food.

Mode of action^[9]

In *Abhakta kaala*, medicine has to be administered in empty stomach so that medicine directly come in contact with *agni*. In *Abhakta kaala*, *amashaya* is free from obstruction and *kapha* will be in aggravated state thus the digestive fire digests the medicine completely and one gets the maximum benefits of the medicine and helps in accomplishment of *sapdhatu prashastava*, hence useful

for *rasayana sevana*.

Examples: *bhallataka guda-arshas*.^[10]

2. Prakbhakta: Acc to commentator *Indu bhashaja* should be administered just before food intake [*tatkalameva*]. *Prak bhojana, bhojana agre, poorva bhaktashaya* are used as synonyms

Indications: *Apana vata vikruthi*, for strengthening lower part of body, diseases of lowerpart of body, obesity.

Mode of action

Medicine administered in this kala will get digested quickly without affecting the bala of person. As medicine will get covered by food, there will be no regurgitation of food. It will help to cure the diseases of *apana vata vikruthi*.^[9]

Example: *Naracha churna-udavarta*[*prakbhakta*]^[11]

3. Madhya bhakta: Administration of medicine in between the food is madhya bhakta. After intake of half of the food medicine is advised to consume later remaining portion of food is advised to consume. *Acharya susrutha* has told that form of medicine should be in liquid form. *madhyabhojanam, madhye* are used as synonyms.

50% food intake ⇒ *bhashaja* ⇒ remaining food intake

Indications: 1. *samana vata vikruthi* 2. *kosthagata vyadhis* 3. *paittika vyadhis*

Mode of action: Due to covering of food, *ushada* attain *avisari bhava* and acts on *samana vata, pitta* and *kostha gata vyadhi* and cause *agni deepana*.^[9]

Example: *Avipattika churna-amlapitta*[*madyabhakta*]^[12]

4. Adhobhakta: Acc to commentator *hemadri & indu* in *adhobhakta, bhashaja* is to be administered immediately after meals. Here *ubhaya kala prayoga* is told. For *vyana vata vikruti* *bhashaja* should be administered in morning after intake of food. For *udana vata vikruti bhashaja* should be administered in morning after intake of food. *Pashchatbhaktam* is used as synonym. Indications: *vyana vata vikruti, udana vata vikruti, urokantashirogata*.

Mode of action

This *kaala* is mainly advised in case of *vyana vata vikruti*. Here medicine is administered in the morning because the site of *vyaana vayu* is considered to be *hridaya*. *Acharyas* have stated that as every flower blooms in the morning everyday similarly every morning heart also blooms, activating *vyana vayu* in it. Thus the medicine administered in the morning will reach *hridaya* and will act properly on *vyana vaayu*. In this *Kaala* medicine should be administered after meal, as the *vyana vayu* gets activated after the digestion of food and formation of *aahara rasa*. Thus the administered medicine is carried along with the *vyana vayu* and helps to cure the diseases related with *vyana vayu*.^[9]

5. Sabhakta: *Sabhakta* means administration of medicine

along with food. *Sabhaktakaala* has two modes of administration of *bhashaja*. In the first method *bhashaja* is to be mixed with food while preparing the food, in the second method *bhashaja* is to be mixed after preparation of food. Indications: 1. women, children, aged, person with less strength, persons who has aversion towards medicine, *aruchi, sarvangagatharogas*, In *mandagni* for *agnideepanartha*, for *manobalkaranartha*.^[9]

Mode of action: In this *kaala* medicine is administered by mixing along with food, thus when the food undergoes *paaka* and gets converted into *aahara rasa*, the medicine also gets *paaka* and its extract comes along with *aahara rasa*, medicine along with *aahara rasa* gets circulated in the body and helps to cure diseases all over the body and helps to mask the strong taste and smell of medicines.^[9]

6. Antharbhakata: Administration of food in between two meals is called *antharbhakata*. The first *antarabhakta* is during daytime, where as next is one *yama* followed by the digestion of evening food as opined by commentator *indu*, which is same as that of *nishi* (night). Here after assessing the *aahara jeerna lakshans* of previous *annakala, bhashaja* is to be administered, after metabolism of *bhashaja* again food has to be taken in the evening. In this *kala, aahara jeerna* and *aushada jeerna lakshanas* plays an important role. *bhaktayormadhye* is used as synonym.

Indications: For *deepanartha, jatrurdhwaroga, in mandagni*

Mode of action: Due to *madhyahna* i.e. *pittakala, agni* is in a stimulated condition, so *bhashaja* is properly metabolised in this *kala*.^[9]

7. Samudga

Administration of *bhashaja* before and after food. *Bhashaja* should be consumed immediately in relation to food. *Bhashaja* acts as *samudga* [box] for *aahara*. Here *aahara* taken should be light food.

Indications: *Hikka, kampa, akshepa, urdwa-adho pravishrutha doshas, pachana lehyas* and *churnas* can be administered. In *hikka doshas* are situated in *urdwa* and *adho shareera*. Medicine administered in this *kala* may have its effect on *apana, vyana, udana vata*

Example: *avapidaka senha pana*.^[13]

Mode of action

- ✓ *Acharya Dalhana* have told the word *piyate* in context with *samudga kaala* which explains that the medicine must be in liquid form so that food is put in like a box
- ✓ No specific *dosha dushti* is indicated for this *kaala*.
- ✓ Some conditions such as *pravishruta, urdhwa and adho visruta dosha, hikka roga, kampa, akshepa, urdhva kayagata vikaras* etc are stated in which *dosha dushti* is found in *urdhwa* as well as *adho sharira*.^[9]

8. Muhurmuhur

Muhurmuhur means again and again. In *muhurmuhur*, *bheshaja* is frequently administered with or without food to maintain the effect throughout. Hence this kala can be broadly divided into two types 1. *sabhaktamuhurmuhur* 2. *abhakta muhurmuhur*.^[9]

Indications

1. *Pranavahasrothas*:- *Shwasa, kasa, hikka*
 2. *Udakavahasrothas*:- *Trishna*
 3. *Annavaahasrothas*:- *chardi, visha*
- Example: *Pushkaramulasava*^[14]

9. Sagra: Here *bheshaja* is to be mixed with each morsel of food

Indications: For *vajeekaranartha*, the medicine used can be in the form of *churna, leha, vataka*. for *agnideepanartha*, in *ksathaksheena* and *alpasukhra*

Mode of action^[9]

- *Sagra* *bheshaja* facilitates absorption of the *bheshaja* right from the buccal mucosa.
- High concentration of drug in systemic circulation offers rapid onset of action.

1. Ksheera^[17]

Kala	Effects
<i>Poorvahne</i>	<i>Balya, Brimhana, Agni pradeepana</i>
<i>Madhyahne</i>	<i>Baladayaka, Ruchikara, Mutrakrichra and Ashmari roga nashaka</i>
<i>Ratri</i>	<i>Aneka dosha shamana</i>

2. Relation between brimhana snehapana and food^[18]

Snehapana	Effects
Before meal	Gives strength to <i>uru, jangha</i> and <i>kati</i> , <i>vata anulomana</i> cures diseases of lower limbs
Middle of meal	Enhances <i>agni bala</i> , gives strength and stability, reduces <i>kukshi sula</i>
After meal	Enhances stability of sense organs, Cures disorders of head and neck.

Factors for deciding aushadha sevana kaala

1. Biological rhythms of dosha
2. Food and drug interactions
3. Type of vata dosha like prana vata etc.,
4. Vaya
5. Bala of person.

Modern approach^[19]

Similar kind of drug administration is also mentioned in contemporary science based on

i. FOOD-DRUG INTERACTIONS

1. Possible effects of food –drug interaction
2. Interluminal Ph
3. Gastric emptying time and Intestinal transit time

ii. CONCEPT OF CHRONOBIOLOGY^[19] (chronos - time, bios -life, logos -study).

- Deglutination is the function of *pranavata*, when medicine is administered in *grasa* form medicine comes in contact with *pranavata*. hence disease related to *pranavata* can be treated easily
- Due to *ruksha guna* of *churna* it increase *agni*.
Examples -*hingwastakachurna –agnimandya*^[15]

10. GRASANTHARA

Administration of *bheshaja* in between each bolus of food. It is indicated in *pranavata vikruti* like *swasa, kasa, trishna, hikka* and in *hrudroga*.

Mode of action: It helps in correcting the *gati vikruti* of *vata dosha* by promoting *anulomana* of *vata dosha*.^[9]

11. NISHI

Acc to commentator *indu nishi kala* is time after evening meal is digested and 3hours has passed. *Swapna kale, ratri* are used as synonyms

Indications: *Inurdhwajatrugata vikaras* for *pachana* and *shamana*, In *sanchaya avstha* for *brimhanartha*, In *pravruddhavastha* for *lekhanartha*

Example: *krishnadichurna-shwasa*^[16]

Example of change in pharmacokinetics of drug when administered at different timings

Introduction

- Most facets of mammalian physiology and behavior vary according to time-of-day, thank to an endogenous “circadian” clock.
- Circadian clocks influence all major organ systems, and this influence translates directly the disease pathology that also varies with time of day.
- The basic unit of circadian clock
 1. Supra chiasmatic nucleus
 2. Clock genes

Definition

The branch of science focusing on biological rhythms and their mechanisms.

Biological rhythms

- Circadian: lasting for about 24 hours.-sleep wake cycle
- Infradian: cycles longer than 24 hours and shorter than 6 days

- Ultradian: cycles shorter than a day
- Seasonal: seasonal affective disorders.

Chronopharmacokinetics

- It deals with the study of the temporal changes in the pharmacokinetics of the drugs with respective time.
- Study of absorption, distribution, metabolism, and excretion of drug according to the time of the day or year.

DISCUSSION

Different *Acharyas* have mentioned different number as well as different name of *aushadha sevana kala*, but all of them define a same meaning behind them. *Aushadha sevana kala* explained by *Acharyas* seems to be based on the routine we follow in a day from morning to night along with the predominance of *dosha*, as it is observed that all *acharyas* told first *aushadha sevana kala* as *abhakta* and last one observed as *nishi*. Examples with clinical interpretation.

Bhallataka guda prayoga in arshas has mentioned to be taken in *abhakta kala* based on *agni* with a dose of 2-4 gm. *Abhakta kala* prayoga can be done in chronic diseases. Swabhava of arshas *vyadhi* is *chirakari* and *guda kalpana* is almost similar to *avaleha*. *Avaleha*'s are advised to take before food in *adhogata rogas*, as they are heavy to digest hence they are advised to taken in empty stomach for proper digestion and to have *rasayana* effect.

Naracha churna advised in *udavarta* has an indication for *prakbhakta kala*. it is mainly indicated in *purisha vega avarodha janya udavarta*. Here the type of *vata* involved is *apanavata*. Hence it is advised to take before food with dose of 6-12 gm of *churna* with *madhu*. when food is taken immediately after administration of medicine, food pushes down the *aushadha* downwards, so *aushadha* reaches the site of *apana vata vikruti* faster than any other administration.

Avipattikara churna is advised to take with dose of 3-6gms with *ushnajala* in *amlapitt*. This *churna* has direct indication for *madyabhakta* and *bhojanadhu*. *Amlapitta* is *pittapradhana vyadhi*, here *pitta* involved is *pachakapitta* and *vata* involved is *samana vata, udana vata*. Heredue to covering of food, *aushada* attain *avisari bhava* and acts on *samana vata, pitta* and *kostha gata vyadhi* and cause *agni deepana*.

Adhobhakta is mainly indicated in *vyana vata* and *udana vata*. *Acharyas* have stated that as every flower blooms in the morning everyday, similarly every morning heart also blooms, activating *vyana vata* in it. Thus the medicine administered in the morning will reach *hridaya* and will act properly on *vyana vata*. Similarly in the evening the action of *vyana vata* is taken over by *udana vata* hence for *udana vata* disorders *bheshaja* has to be administered in the evening.

Sabhakata is mainly indicated for children, who have

lesser strength and women to *adviod glani* and *balakshaya*. When *bheshaja* is administered in *sagrasa kala* facilitates absorption of the *bheshaja* right from the buccal mucosa and helps to maintain high concentration of drug in systemic circulation offers rapid onset of action. *GRASANTHARA* helps in correcting the *gati vikruti* of *vata dosha* by promoting *anulomana* of *vata dosha*.

Muhurmuhurprayoga of *puskaramulasava* is done in *tamakaswasa*. when drug is repeatedly administered at regular intervals maintains a steady concentration of drug in bloodstream and helps to sustain the desired therapeutic effect over an extended period.

Nisi is mainly indicated in *urdhwajatrugatarogas*. *krishnadichurna* along with *ardraka swarasa* is advised to take during night times in *shwasa*. According to chrono-pharmacology acute attack of asthma will be more common during midnight to early mornings hence they advice *theophylline* for nocturnal asthma, elevated *theophylline* concentration during night time reduce the risk of attack. *tamaka shwasa* told in ayurveda classics seems to be identical with description of bronchial asthma may helps to reduce the risk of attack during night times.

Avapidaka senha pana is mainly indicated in *mutravegavarodhajanya vikakars*. Here two doses of *sneha* is administered. First dose is before food and second dose is after food. *Pragbhakta oushadha* acts up on the *apana vata* which is vitiated due to the suppression of *mutra vega* & symptoms are seen in the lower abdomen or pelvic region. *jeernantika oushadha* when given after the digestion of previous food may acts up on the *vyana vata* which is *sarva dehachari* & the medicine pacifies the condition which are present in other parts of body like *angabhanga, shirasoola* etc. this site specificity is provided by the time of administration of medicine.^[39]

Hence the evaluation of type of *vata, jeernalinga of ahara and aushadha, vyadhi, desha* plays important role in deciding time of drug administration. Potency of *aushadha* also plays an important role in *aushadha sevana kala*. *Aushadha sevana kala* is not applicable when the medication is administered via a route other than oral route. *Aushadha sevana kala* is not applicable in case of *atyayika chikitsa* [one cannot wait for *muhurta* of the drug administration, that emergency itself indicates the time]. *Aushadha sevana kala* helps us to tackle disease at its most active phase, by precising drug intervention when *doshas* are at its peak and thus helps prevent irrational usage of drugs throughout the day thereby reducing the drug intake, thus maximum bioavailability of the drug was the prime consideration.

CONCLUSION

Aushadha sevana kala can be correlated with pharmacodynamic profile of drug⁴⁰. In comparison with both sciences we got both similarities and dissimilarities

too. So both sciences are standing on the principles and aims to increase the treatment efficacy. So, it is more important that we should take consideration of *aushadha sevan kala* while administration of drug to increase the treatment efficacy. Vaidya with a thorough understanding of *aushadha sevan kala* can treat patients more effectively and achieve better disease outcomes.

REFERENCES

1. Agnivesha, charaka, charaka samhita, chikitsa sthana, yonivyapat chikitsa adhyaya, 30. Pandey GS, editor. 8th edition. chaukhambha Sanskrit samsthana, Varanasi, 2004.
2. Sushruta, Sushruta samhita, uttar tantra. swasthokrama adhyaya, 64. Acharya JT, editor. Reprint 1st edition. Chaukhambha surbharati prakashana, Varanasi, 2003.
3. Vagbhata, ashtang hridaya, sutra sthana, doshopakramaniya adhyaya, 13. Paradkar HS, editor, reprint edition. Chaukhambha surbharti prakashana, Varanasi, 2002.
4. Pandit Hemraja Sharma, Satyapal Bhisagacharya. Vrddha Jivaka, Kasyapa Samhita, khila Sthan 3. Chaukhamba Sanskrit Sansthan; Varanasi, Reprint, 2015.
5. Indu, commentator, sangraha, sutra sthana, bshajawacharaniya adhyaya, 23, Sharma SP, editor, 1st edition. Chaukhambha sansrit series office, Varanasi, 2006.
6. Sharangadhara, sharangadhara samhita, prathama khanda2-12:18, Ptparashuram shastri editor, 1st edition. Chaukhambha surbharati prakashana, Varanasi, 2006.
7. Sharangadhara, sharangadhara samhita, prathama khanda2-4:18, Ptparashuram shastri editor, 1st edition. Chaukhambha surbharati prakashana, Varanasi, 2006.
8. Agnivesha, charaka, charaka samhita, siddhithana sthana, vamanavirechanavyapadadhyaya, 6/26. Pandey GS, editor. 8th edition. chaukhambha Sanskrit samsthana, Varanasi, 2004.
9. Junjarwad AV, Savalgi PB, Vyas MK. Critical review on Bhaishajya Kaala (time of drug administration) in Ayurveda. Ayu., Jan. 2013; 34(1): 6-10. doi: 10.4103/0974-8520.115436. PMID: 24049398; PMCID: PMC3764882
10. Sharma priyawat. chakradatta. Varanasi: Chaukhambha orientalia, 1994.
11. Sharangadhara sharangadhara samhita, madyama khanda, 6/95-96, Ptparashuram shastri editor, 1st edition. Chaukhambha surbharati prakashana, Varanasi, 2006; 16.
12. Kaviraj shree ambikadattashastree, Bhaishajya Ratnavali Vidyotini hindivyakhya, vimarsha, parishista samhita, 14. Amlapitta Chikitsa, 56, 25-29, Varanasi, Chaukhamba publication, 2001; 644.
13. Vagbhata, ashtang hridaya, sutra sthana, Roganutpadaniya adhaya, 4/6-8. Paradkar HS, editor, reprint edition. Chaukhambha surbharti prakashana, Varanasi, 2002; 219.
14. Vaidya Mahendra Pal Singh Arya, editor, Sahasra Yoga. New Delhi: Kendriya Ayurveda and Siddha Anusandhana Parishad, 1990; 350, 621.
15. Vagbhata, ashtang hridaya, chikitsa sthana, Gulma chikitsa adhyaya, 14/35. Paradkar HS, editor, reprint edition. Chaukhambha surbharti prakashana, Varanasi, 2002; 219.
16. Vaidya Sreelakshmipathisastri, Commentator, Brahmasankarsastri editor, Yogaratnakara, mangalachara 1/860 Choukhambha prakashan varanasi, Reprint, 2003.
17. Krishnan K.V, Gopalan Pillai A.K. Sahasrayogam, 32nd ed. Kashaya Prakarana, verse 2. Aleppy: Vidyarambam. Publishers, 2013; 54.
18. Indu, commentator, sangraha, sutra sthana, Vividha darvya sangraha, 25/24, Sharma SP, editor, 1st edition. Chaukhambha sansrit series office, Varanasi, 2006.
19. Dr. Ashutoshtiware, 14/02/2014, CHRONOPHARMACOLOGY, ppt, SAIMS, indore, <https://www.slideshare.net/slideshow/chronopharmacology-36962170/36962170>