



Chronopharmacological Aspects Of Ayurveda Medicines

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ABSTRACT:-

Chronopharmacology is a subfield of pharmacy that focuses on understanding the relationship between biological rhythms and pharmacotherapy, or the timing of medication delivery and its effects. In Ayurveda, chronobiology is a fundamental idea. *Doshas* recognise all three types of rhythms—circadian, menstrual, and annual—both qualitatively and numerically. In fact, circannual rhythms are seen as an extension of circadian rhythms. According to Susruta, one should observe the characteristics of the seasons throughout the day and night, including the characteristics of the seasons of spring, summer, early rains, early night, autumn, and early winter.

Ayurveda emphasize that Timely medicine is connected to *Dosha* variations and biorhythms. Whenever we planned a Ayurveda medicine in time bound manner its effects specificity and role is more specific diseases. Chronopharmacology and Bhshaj kaal is closely related to each other.

Bheshaj sevana Kaal is a concept described in Ayurved samhitas which means the time of Bheshaj sevana. The term "kaal" in the Ayurvedic Samhitas refers to the moment when a drug is administered. *Kaal* (Time) is a component of *karana dravya* and has a variety of significant functions in our lives. The *Shrishti Uttapatti* is the source of the *Kaal's* existence. *Trisutra* Ayurved, which provides the knowledge of the entire Ayurveda, has been described by Acharya Charak. *Trisutra* consists of *Hetu* (causes), *Linga* (signs and symptoms), and *Bheshaj* (medications). Acharya Charaka also mentions the patient's *desha* (region), *kala* (time), *pramana* (dose), *satmya* (wholesomeness), *asatmya* (unwholesomeness), *aahara* (food), and *Bheshaj* (medication) as additional factors. *Kaal* is a specific and unique cause of all results, and it is also inescapable. The science of life known as Ayurveda places more stress on the concept of *kaal* because it is one of the *karan dravya*.

A biological process or function that has a rhythm that is inherently determined, such as sleep behavior, as well as the underlying mechanism that controls such a process or function.

The goal of the current study is to critically analyze the terminology and nomenclature employed in samhitas for the timing of the administration of ayurvedic herb-and-mineral preparations (*Bheshaj sevana kaal*). In order to accomplish this, one of our goals is to research the notion of *Bheshaj sevana kaal* in various Samhitas in order to determine how useful it is in identifying the textual study material that should be chosen for the therapy regimen. Different samhitas and their commentary use different terminologies and nomenclature. According to samhitas, there are also minor variations in the number of different varieties of *Bheshaj sevana kaal*. Because agni is the key element in creating the *Dhatu Samyata*, all Ayurvedic treatments primarily focus on preserving and maintaining its potency.

The *Bheshaj Seven Kala* idea aids in the knowledge of food and drug interactions, enabling Ayurvedic doctors to offer patients immediate and long-lasting treatment. It has been noted that in the modern period, proper medication administration is not carried out in relation to *dosha*, *dusya*, *rogi*, and *rogbala* in consideration of the *Bheshaj seven kaal*, and as a result, treatment is unsuccessful in curing the

patients. In this study, it was found that several *Bheshaj sevan Kaals* were described by various Acharyas using various terminologies in the Ayurvedic literature.

Keywords - Chrono pharmacology, *Bheshaj seven kaal*, *Timely Medicine*, *Biorhythms*

INTRODUCTION:-

In Ayurveda, chronobiology is a fundamental idea. *Doshas* recognize all three types of rhythms—circadian, menstrual, and annual—both qualitatively and numerically. In fact, circadian rhythms are considered as an extension of annual rhythms, with Sushruta stating that one should observe the signs of spring both during the day and at night. In terms of biological rhythms, there are internal and external components. Numerous physiological factors, including pulse, temperature, blood pressure, hormone secretions, and diurnal fluctuation in insulin's effects on blood sugar, have been found to exhibit rhythmicity. [1,2,3] Similar to how some diseases symptoms change over time. All physiological and pathological phenomena in Ayurveda depend on the delicate balance of *doshas*, and modifications are done in the form of *dinacarya* and *rtucarya* to accurately manage dosic biological clocks.

Ayurveda is regarded as an upved of the Atharva veda and is a distillation of the Vedas. Ayurveda has a wealth of reference materials, including the *Agnivesh Tantra*, *Bhel Samhita*, *Harit Samhita*, *Sushrut Samhita*, and others. Acharyas learned about Ayurveda via their *Guru-Shishya* [4] And through teaching and learning techniques in the past, such as *Adhayan-adhyapan vidhi* and *Tadvidh Sambhasa* [5], as indicated in *Charak Samhita*, the knowledge of Ayurveda was passed down for future generations. The two sorts of *kaal* (time) are *awasthik kaal* and *nityag kaal*. *Stages of life*, such as *Balyavstha*, *Tarunavstha*, and *Jaravstha*, are referred to *aswasthik*.

Seasonal intervals known as "*nityag kaals*" come in two varieties: *Visarga kaal* and *Adana kaal*. Three *ritus* are present in [6] *Adana Kaal: Shishir* (Cold), *Grishma* (Hot), and *Vasant*. Also included in *Visarga Kaal* are three *Ritus* named *Varsha*, *Sarad*, and *Hemant*. [7] Ayurveda, the world's oldest system of traditional medicine, is deeply concerned with the wellbeing and suffering of all Earth's inhabitants. It was explained using the *Trisutra* format, which consists of the *Hetu* (cause) factor, the *Linga* (symptoms), and the *Bheshaj sutra* (therapy).[8] The third and last member of this trio has been given the same weight as the first two. The *Bheshaj Sutra*, which is a part of *Chikitsa*, conceals a great deal more programm (Treatment) that are helpful for promoting, preventing, protecting, and providing palliative care for both healthy and ailing entities.

Regardless of any specific features that are given or not given, according to Acharya Charaka, the medication that is utilised to balance the status of imbalanced *Dosha*, *Dooshya*, and *Nidan* (the aetiological elements) separately or to all three will unquestionably treat the condition.[9]

Bheshaj sevan kaal is taken into account under *awasthik kaal*.

For the therapeutic administration

1. *Shadaveksha kaal* (the six observatory aspects of time) is the first category of *kaal*.
2. *Bheshaj Kaal* (medical administration period)

1) *Dina* (day) is one of the six observatory aspects of time, or *Shadaveksha Kaal* [10]. 2) The patient, *Rogi* (Medicine) *Bheshaj Vyadhi* (illness), *Jeerna Lakshan*, and *Ritu* (seasons) round out the list. In order to avoid obstacles that can prevent the patient's treatment from being successful, Acharya has interpreted the notion of *Kaal*. Most ayurvedic practitioners read *Laghutrayi* and *Bruhatrayi* to gain a knowledge of the fundamental ideas and principles of ayurveda. In Ayurvedic texts, such as *Samanya Vishesh Siddhant*, *Dhatusamyasiddhant*, *Ahar Vihar Sevan* according to *Ritu*, *Pathyapathya Sevankaal*, etc., various notions, protocols, and principles are mentioned. Similar to how Acharya described *Bheshaj sevan Kaal*, which refers to the *Bheshaj* (medicine) *sevan* time according to *Panch Nidan* (as per *nidana*, *poorvarup*, *roop*, *upashay* and *samprapti* of the ailments), Acharya also discussed *Bheshaj sevan Kaal*. [11]

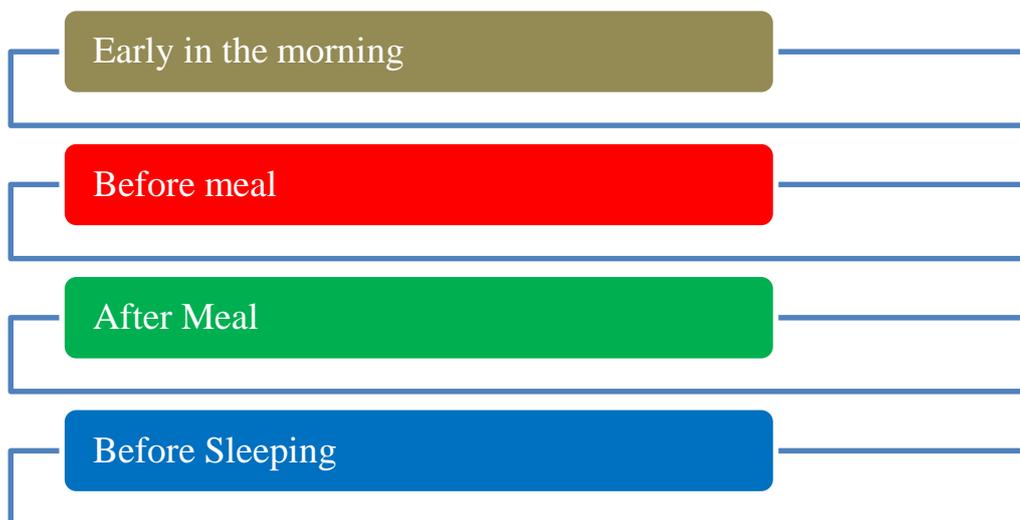


Fig 1 Some of the common times of drug administration as per modern sciences.[12]

The term "*Kalo Bhaishajya Yogakrut*," used by Acharya Vagbhata, alludes to the notion that timing the administration of a medication to maximise its therapeutic effect.[13] Acharya Charaka asserts that *Bheshaj* (medicine) taken at the right time has superior results to *Bheshaj* (drug) taken at the wrong time.

General considerations related to selection of *Bheshaj* Sevana Kala

Bheshaj interactions with food can alter a drug's effectiveness. Agni's energetic condition makes it simpler for drugs to change, hence determining when to provide a drug requires consideration of Agni: For instance, *Pratah Niranna Kala* is advantageous for *Rasayana* because it energizes the three varieties of *Agni*, *Jatharagni*, *Bhutagni*, and *Dhatvagni*. At *Madhyabhakta Kaal*, *Dipana Dravya* drugs should be used to treat *Agnimandya*. It is recommended to take medications that cause physiological reactions first thing in the morning or before meals. It is recommended to use *Vayu*-soothing medications prior to meals. It is recommended to use *Pitta* soothing medications right before eating. Purgatives and laxatives should be taken in the early morning or late at night.[14]

MATERIAL AND METHODS-

The information about *Bheshaj sevan kaal* was gathered and noted in the tabulated form to make it more eye-catching by consulting the Ayurvedic literature texts as well as numerous published articles from various search engines like Pubmed, Scopus, Publons, Web of Sciences Research Gate, Google Scholar, and other indexed journals available online and offline. They were then analyzed to obtain the reasons behind the various nomenclatures given by various Acharya which will guide for the exact reference to identify what exactly the *Bheshaj sevan kaal* is

Table no .1. Synonyms of *Bheshaj sevan Kaal* in Ayurved samhita's-

Samhita/ Sl.no.	Charak Samhta	Sushrut samhita	Ashtang Hrudyam	Ashtang sangrah	Sharangdhar Samhita	Madhav nidan
Synonyms	Bhaishajya Kaal	Bheshaj Kaal	Bheshaj Kaal	Bheshaj Kaal	Bhaishajya Kaal	-

Table no.1 shows many Acharyas synonyms for aushad sevan kaal. *Bheshaj sevan kaal*'s synonyms are translated as *Bhaishajyakaal* by Acharya Charak and Sharangdhar. *Bheshaj kaal* is a term used in *Ashtang Sangrah*. The phrase *Bheshaj kaal* is used in the *Sushrut Samhita* and *Ashtang hruday*.

Table no 2: Types of Bheshaj sevan Kaal in Ayurved samhita's[12]

Sr.No.	Name of Samhita	Enumeration
1	<i>Charak Samhita</i>	10
2	<i>Sushrut Samhita</i>	10
3	<i>AshtangHrudyam</i>	10
4	<i>AshtangSangrah</i>	11
5	<i>Sharangdhar Samhita</i>	5
6	<i>MadhavNidan</i>	0

Table no.2 Numerical variances among the several *Bheshaj sevan kaals*.

Ten different types of *Bheshaj sevan kaal* have been described in the Ayurvedic compendium (Charak, Susrut, and Ashtang Hrudayam), compared to 11 and 5 in Ashtang Sangrah and Sharangdhar Samhita, respectively. However, because the Charak Samhita is regarded as the greatest literature for *chikitsa* (therapy), most vaidyas accept the distinction made by Acharya Charaka.

Table no 3: References of *Bheshaj Sevan Kaal* in Ayurved samhita's –

Samhita	Charak Samhita	Sushrut Samhita	Ashtang Hrudyam	Ashtang Sangrah	Sharangdhar Samhita	Madhav Nidan
<i>Adhyay</i>	<i>Yoni Vyapad</i>	<i>Swastho-pkram</i>	<i>Doshop-Kramniya</i>	<i>Bheshj aavcharana</i>	<i>Pratham Khand</i>	-
<i>Sthan</i>	<i>Chikitsasthan</i>	<i>Uttar tantra</i>	<i>Sutra sthan</i>	<i>Sutra sthan</i>	<i>Bhaishajya vyakhya</i>	
<i>Chapter No.</i>	30	64	15	23	2	
<i>Sutra Ref.no.</i>	297-298	67	37	13-23	2-3	

Table no 4: *Bheshaj sevan Kaal* varieties and names as described in Ayurvedic Samhitas

Samhita / Sl. No.	Charak Samhita ¹⁶	Sushrut Samhita ¹⁷	Ashtang Hrudyam ¹⁸	Ashtang Sangrah ¹⁹	Sharangdhar Samhita ²⁰	Madhav Nidan
1.	<i>Prataha niranna(for balvan rogi)</i>	<i>Abhakt</i>	<i>Ananna</i>	<i>Abhakt</i>	<i>Kinchit-suryodya</i>	-
2.	<i>Laghu annapaan yukt (for durbal rogi)</i>	<i>Pragbhakt</i>	<i>Annadau</i>	<i>Pragbhakt</i>	<i>Divas Bhojanai</i>	-
3.	<i>Bhaktadau</i>	<i>Adhobhakt Madh</i>	<i>Madhya</i>	<i>Madhya</i>	<i>Sayantne</i>	-
4.	<i>Madhye</i>	<i>Madhyebhakt</i>	<i>Anta</i>	<i>Adhobhakt</i>	-	-
5.	<i>Pashchaan -</i>	<i>Antarabhakt</i>	-	<i>Antarbhakt</i>	-	-
6.	<i>Muhurmaha</i>	<i>Sabhakt</i>	<i>Graas</i>	<i>Sagraas</i>	-	-
7.	<i>Samudga</i>	<i>Samudga</i>	<i>Muhurmuh a</i>	<i>Muhurmu ha</i>	<i>Muhurmuh</i>	-
8.	<i>Bhakt Sayukta</i>	<i>Muhurmuh bhakt</i>	<i>Samudga</i>	<i>Samudga</i>	-	-
9.	<i>Graas</i>	<i>Grasbhakt</i>	<i>Sanna</i>	<i>Sambhakt</i>	-	-
10.	<i>Grasantare</i>	<i>Grasantarbhakt</i>	<i>Kawalanta</i>	<i>Grasantar</i>	-	-

11. - - Nishi Nishi Nishi -

Table no.5: Nomenclature of Bheshaj sevan Kaal according to Charak Samhita and Chakrapani tika.

Samhita/S.No.	Charak Samhita	Tika / S.No.	Ayurvedeepika (chakrapani) ²¹
1.	Prataha niranna (for balvan rogi)	1.	Pragbhak Niranna Bhuktadaut
2.	Laghu annapaan yukt (for durbal rogi)	2.	
3.	Bhuktadau	3.	Madhyabhukta
4.	Madhyabhukta		
5.	Pashchaatbhukta	4. 5.	Pratahbhojan paschat) Pashchaa bhukta Sayanbhojan paschat
6.	Muhurmuha	6.	
7.	Samudga	7.	Samugda
8.	BhaktSayukta	8.	BhaktSayukta
9.	Graas	9.	Graas
10.	Grasantar	10.	Grasantar

Table no 6: Nomenclature of Bheshaj sevan Kaal according to Sushrut Samhita and Dalhana tika

Samhita/Sl.No.	Sushrut Samhita*	Nibandh sangrah(dalhan) ²¹
1.	Abhakt	Nirbhakt (Abhakt)
2.	Pragbhakt	Pragbhakt
3.	Madhya	Madhya
4.	Adhobhakt	Adhobhakt
5.	Antarabhakt	Antarbhakt
6.	Graas	Graas
7.	Muhurmuha	Muhurmuha
8.	Samudga	Samugda
9.	Sabhakt	Sabhakt
10.	Grasantar	Grasantar

Table no 7: Nomenclature of Bheshaj sevan Kaal according to Ashtang Hrudyam with arundutta tika[Sarvang sundari]and Hemadri tika [Ayurved rasayan]

Samhita/Sl.No.	Ashtang Hrudyam	Sarvangsundari (Arundutta) ²⁰	Ayurveda rasayan (Himadri) ²¹
1.	Aananna	Aananna	Abhakt
2.	Annadau	Annadau	Pragbhakt
3.	Madhya	Madhya	Madhya
4.	Aante	Aante	Adhobhakt
5.	Kawalantar-	Kawalantar	Grasantaram
6.	Graase graase	Graas	Sagraas
7.	Muhurmuha	Muhurmuha	Muhurmuha
8.	Samudga	Samputak	Samput
9.	Sanna	Sanna	Sanna
10.	-	-	-

11.	Nishi	Nishi	Naisham
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Table no 8: Nomenclature of *Bheshaj sevan Kaal* according to *Ashtang Sangrah* and *Indu tika*

Samhita/ Sl.No.	Ashtang Sangrah	Shashilekha ²³
1.	Abhakt	Abhakt
2.	Pragbhakt	Pragbhakt
3.	Madhya	Madhya
4.	Adhobhakt	Adhobhakt
5.	Antarbhakt	Sambhakt
6.	Sagraas	Antarbhakt
7.	Muhurmuha	Muhurmuha
8.	Samudga	Samudga
9.	Sambhakt	Sagraas
10.	Grasantar	Grasantar
11.	Nishi	Nishi

Table no 9: Information collected and incorporated regarding different Types and Nomenclature of *Bheshaj sevan Kaal* according to commentators of different Samhita's

Tika/ Sl.no.	Ayurvedeepika (chakrapani)	Nibandhsangrah (dalhan)	Sarvangsundari (arundutta)	Ayurveda rasayan (himadri)	Sashilekha (Indu)
1	Niranna,	Nirbhakt (Abhakt)	Aananna	Abhakt	Abhakt
2	Pragbhakt	Pragbhakt	Annadau	Pragbhakt	Pragbhakt
3	Madhya (pratah- sayan)	Madhya	Madhya	Madhya	Madhya
4	Pashchaat (pratah- sayan)	Adhobhakt	Aante	Adhobhakt	Adhobhakt
5	GraasGrasantar	Antarbhakt	Kawalantar	Grasantaram	Sambhakt
6		Graas	Graas	Sagraas	Antarbhakt
7	Muhurmuha	Muhurmuha	Muhurmuha	Muhurmuha	Muhurmuha
8	Samugda	Samugda	Samputak	Samput	Samudga
9	BhaktSayukta	Sabhakt	Sanna	Sanna	Sagraas
10	-	Grasantar	-	-	Grasantar
11	-		Nishi	Naisham	Nishi

Table 10 *Bheshaj Sevana Kala* and its indications²⁶

Sr. no.	Aushad sevan kal	Indication
1	<i>Abhakta</i>	<i>Healthy person</i>
2	<i>Pragbhakta</i>	<i>Apanavikruti</i>
3	<i>Madhyabhakta</i>	<i>Samanavikruti</i>
4	<i>Adhobhakta</i>	<i>Urdhvajatrugataroga</i>
5	<i>Samabhakta</i>	<i>Sarvagavyadhi</i>
6	<i>Antarabhakta</i>	<i>Vyanavyadhi</i>
7	<i>Muhurmuhu</i>	<i>Hikkashwasa, kasa, trusha, chhardi, Vishaktata.</i>
8	<i>Samudga</i>	<i>Hikka, kampa, aakshepa Urdhwa / Adhaparshwa vyadhi</i>
9	<i>Sagrasa</i>	<i>Prana vayu vikruti vajikarana</i>
10	<i>Grasantara</i>	<i>Pranavayu vikriti, hrudroga</i>
11	<i>Nishi</i>	<i>Urdhva jatru gata vyadhi, vaman, dhumapana</i>

DISCUSSION

Etymology of *Bheshaj*-

Bheshaj means '*Rognasaka dravyam*' according to '*Shabdakalpdrum*' [27]. Synonyms of the *Bheshaj* is *Bhejashja*, *Bheshajyam*, *Agad*, *Jaayu* in '*Shabdakalpdrum*' [27]. *Kaal* (Time) The definition of '*Kaal* is '*kalo hi nambhagyan naadinidhanoatra* [25] means which is originated by himself and it has no beginning, no mid, no end and act just like a bhagwan (GOD).

Kaal also grants the drug appropriateness. First, there are two sorts of *kaal*: *Khasn*, *lava*, *muhurta*, etc. The patient or disease's stage comes in second. [28] Ritus asserts that the three defining characteristics of *kaal* are *Shishir* (cold), *Grishma* (hot), and *Varsha* (rainy), respectively. The other three seasons—*Vasanta*, *Sharad*, and *Hemant*—are moderate.

The daytime of the temperate seasons is the optimal *kaal* for administering *panchkarma* treatments like emesis and purgation. According to *Din* (various days), *Atura* (patient nature), *Vyadhi* (nature of ailment), *Jirna-linga* (stage of food digestion), and *Ritu* (nature of season), the *Bheshaj* should be administered. Different nomenclature (terminologies) are employed in ayurveda by Acharyas in different *samhitas*. The table No. 1 in this article lists many Acharyas' synonyms for "*bheshaj sevan kaal*." As seen in table no.2, the Ayurvedic Compendium lists 10 different forms of *Bheshaj sevan kaal*, whereas *Ashtang Sangrah* and *Sharangdhar Samhita* list 11 and 5, respectively. As can be seen from the preceding table number, these texts disagree on the nomenclature of *Kaal*. However, since it is the best text for the treatment of *Charakastu chikitsite*, the division made by Acharya Charaka is largely recognised by the *vaidyas*. In my study, ten slots or times of administration of the ayurvedic herb-mineral treatments are detailed according to the patient's state and diseased status. *Bheshaj Sevana Kala* is impacted by a few key variables. [30]

Age, sex, and the presence of coexisting medical disorders; Agni condition;

- Disease types and severity; internal characteristics of patients; external factors
- Desha - Depending on their effectiveness, different preparations, such as *Swaras*, *Kalka*, *Kwath*, and *Vati*, among others, may be given at various times.
- The patients' mental health, etc.

Review of *Bheshaj Kaal*:

Bhaktadau [31]-According to Acharya Charak, a healthy patient who is strong should take their meds first thing in the morning before breakfast, and a patient who is weak should do so along with some simple, readily digestible food. Bhaktadau, which signifies medicine administered before a meal and is employed in *Apaanvayudushti*, is the first *Bheshaj Kaal* in the Charak Samhita.[13] *Niranna* and *Pragbhakt* are names for *Bhuktadau* in the *Ayurved-dipika* by Acharya chakrapani. [21] *Niranna* means to wake up with an empty stomach and avoid eating for a short while after taking medication. *Pragbhakt* refers to taking medication right before a meal. **Abhakt Kaal**-It involves giving the patient no meal while administering the medication separately. In such kaal, the medicine will work quite effectively. Strong individuals should take their prescription in the morning when their stomach's aggravated Kapha has passed. Other people should take their medications before eating so that the meal won't cause them to become fatigued. **Nibandh sangrahtika-** Acharya Dalhan has taken the nomenclature *AbhaktKaalsame assushrutsamhita*. [21] **Shashilekhatika**-Acharya Indu has interpreted the name of *Abhakt Kaal* same as *Ashtang Samgrah* [24] **Ananna Kaal** Administering medication without meal. **Sarvangsunderitika** -Acharya Arundutta has taken the name of *Ananna Kaal* same as *Ashtang hrudyam*. [24] **Ayurvedrasayan** -Acharya hemadri has taken the name of *Abhakt Kaal* instead of *Ananna Kaal*. [24] **Kinchit-suryodya**-Acharya Sharangdhar says medicine should be administered during slight sunrise. It is applicable for purgation, scrapping. It is also like *Abhakt Kaal*. [31] **Pragbhakt [31]** The drug should be administered right before eating in order to strengthen and build the body as well as to treat disorders of the lower extremities and diseases caused by *apanavata*. **Nibandh sangrahtika-** Acharya Dalhan has taken the name of *Pragbhakt Kaal* same as *Sushrut Samhita* [22]. **Shashilekha tika** Acharya Indu has taken the name of *Pragbhakt Kaal* same as *Ashtang Samgrah*. [22]. **Annadau [25]**-This *Bheshaj sevan Kaal* is explained by Acharya vagbhatta. This *Bheshaj sevan Kaal* means medication taken before meal. **Ayurved rasayan**- Acharya hemadri has taken the name of *Pragbhakt Kaal* instead of *Annadau Kaal*. [24]

Sarvangsunderi -Here Acharya Arundutta has taken the name of *Annadau Kaal* same as *Ashtang hrudyam*. [23] **Madhya [33]**-The medication is administered in the midst of the meal and is helpful for illnesses caused by *Samana-vata*, gastrointestinal ailments, and illnesses with *Pitta* origins. In his *Samhita*, Acharya Charak explains what *Madhya* means in the middle of a meal. **Ayurved dipika-** Acharya chakrapani says first finish the half meal than take the medicine and after taken medicine finish the remaining meal. [21] **Nibandhsangrahtika-** Here Acharya Dalhan has taken the name of *Madhya Kaal* same as *Sushrut samhita*. [22] **Ayurved rasayan** -Here Acharya hemadri has taken the name of *Madhya Kaalsame asAshtang hrudyam* [23] **Sarvangsunderi**-Here Acharya Arundutta has taken the name of *Madhya Kaalsame asAshtang hrudyam* [23] **Shashilekha tika**-Here Acharya Indu has taken the name of *Madhya Kaal* same as *Ashtang Samgrah*. [25] **Pashchaat**-It is administration of the drug after the meal, in diseases due to *vyanvata*; it should be after the morning (midday) meal.

Ayurved dipika- Acharya chakrapani said about *Pashchad Bhaktam* that both times (morning and evening) after meal. Acharya chakrapani consider two different *Kaal* as *Pratah bhojanottar Kaal*, *Sayanbhojanottar Kaal*. [22] **Adhobhakt Nibandhsangrahtika**-Here Acharya Dalhan has took the name of *Adhobhakt Kaal* same as *sushrut samhita*. [22] **Shashilekhatika**- Here Acharya Indu has taken the name of *Adho bhakt Kaal* same as *Ashtang Samgrah*. [25].

Aante-This *Bheshaj sevan Kaal* explained by Acharya vagbhatta. This *Bheshaj sevan Kaal* mean drug taken just after meal. **Ayurvedrasayan** -Here Acharya hemadri has taken the name of *Aante Kaal* replace of *Adhobhakt Kaal*. [24] **Sarvan sunderi**-Here Acharya Arundutta has taken the name of *Aanta Kaal* same as *Ashtang hrudyam* [23] **Bhakt Sayukta** Acharya Charak says about the *bhakt sanyutam* means mix with **Ayurveddipika**-Acharya chakrapani explained about *bhuktsanyutam* is *Bhukta Annen Samyutamiti*. Its mean the drug is mix with the meal and meal is consumed. Acharya chakrapani uses many words for *bhuktsanyutam* like *sambhakt*, *sabhakt*, *sambhojyam*. [21]. **Sabhakt**- *Sabhakt* is partaking food prepared by mixing the drug or adding the medication to the cooked food before eating it. It is suggestive for kids, people with delicate constitutions, those who detest medications, people who lose their appetite, and people with illnesses that impact the entire body. **Nibandhsangrahtika**-Here Acharya Dalhan has took the name of *Sabhakta Kaalsame as sushrut samhita*. [21] **Shashilekhatika**-Here Acharya Indu has taken the name of *sabhakta Kaal* same as *Ashtang Samgrah*. [25] **Sanna**-This *Bheshaj sevan Kaal* explained by Acharya Vagbhatta. This *Bheshaj sevan Kaal* mean drug taken before meal. **Ayurved rasayan**-Here Acharya hemadri has taken the name of *Sanna Kaalsame asAshtang hrudyam* [24] **Sarvangsunderi**-Here Acharya Arundutta has taken the name of *Sanna Kaalsame asAshtang hrudyam* [23] **Antarbhakt** - It is administration of the medicine first at midday after digestion of the forenoon meal (breakfast) and once

again in the afternoon after the digestion of the midday meal. Likewise in case of the night also. The method is indicated for those who have strong digestion and disorders cause by vyanvata. **Nibandhsangrahtika** - Here Acharya Dalhan has taken the name of *Antarbhakt Kaalsame assushrutsamhita*. [22] **Shashilekhatika** - Here Acharya Indu has taken the name of *Antarbhakt Kaalsame as Ashtang Samgrah*. [25] **Samudga** - *Samudga* word refers to *Samputaka*, which means a box like structure. [33]

Samudga is the practise of taking medication twice, both before and after meals. Food should be in the form of confections, power, etc. and should be easily digestible. This approach is recommended in cases of hiccups, tremors, swallowing tremors, convulsion, and dosha localization in both the upper and lower body. **Ayurveddipika**- Here Acharya chakrapani has took the name of *Samudga Kaalsame* as other Acharya. [21]. **Nibandhsangrahtika**-Here Acharya Dalhan has took the name of *Samudga Kaalsame assushrutsamhita*. [22]

Ayurvedrasayan -Here Acharya Hemadri has taken the name of *Samudga Kaal* replaced of *Samput*. [24] **Sarvansunderi**—Here Acharya Arundutta has taken the name of *Samudga Kaal* replaced of *Samputak*. [23] **Shashilekhatika**-Here Acharya Indu has taken the name of *Samudga Kaal* same as *Ashtang Samgrah*. [25] **Muharmuha** -*Muharmuhu* is the use of medicine, frequently (often) with or without food. This method is useful in disease like dyspnoea, cough, hiccup thirst, vomiting, and diseases caused by poisons.

Ayurveddipika- Here Acharya chakrapani has took the name of *Muharmuhu Kaal* same as other Acharya. [21] **Nibandhsangrahtika**-Here Acharya Dalhan has taken the name of *Muharmuhu Kaalsame* as *Sushrutsamhita*. [21] **Ayurvedrasayan** -Here Acharya Hemadri has taken the name of *Muharmuhu Kaalsame* as *Ashtang hrudyam*. [24] **Sarvansunderi**—Here Acharya Arundutta has taken the name of *Muharmuhu Kaalsame* as *Ashtang hrudyam*. [23]

Shashilekhatika-Here Acharya Indu has taken the name of *Muharmuhu Kaal* same as *Ashtang Samgrah*. [25] **Graas** -*Graas* is taking medicine only once with first morsel of the food.

Nibandhsangrahtika-Here Acharya Dalhan has taken the name of *Graas Kaal* same as *sushrut samhita*.¹⁹[22] **Ayurvedrasayan** -Here Acharya Hemadri has taken the name of *Graas Kaal* replaced of *Sagraas*.²¹[24] **Sarvansunderi**—Here Acharya Arundutta has taken the name of *graas Kaalsame* as *Ashtang hrudyam*. [23] **Sagraas**- Medicine administered with each bite of meal is *sagraas*. **Shashilekhatika**-Here Acharya Indu has taken the name of *Sagraas Kaal* same as *Ashtang Samgrah*. [25] **Grasantar**-*Grasantara* is taking it after every morsel. Both these are indicted in disorder of pravanvata. Medicine which are in the form of powder, confection pill etc., and having the property of kindling digestion and those which aphrodisiacs are to be used along with one morsel. **Nibandhsangrahtika**—Here Acharya Dalhan has taken the name of *Grasantara Kaalsame* as *sushrut samhita*. [23] **Shashilekhatika**-Here Acharya Indu has taken the name of *Grasantara Kaalsame* as *Ashtang Samgrah*. [25] **Graas-Grasantar**-*Graas Graasantar* is considering as only one *bheshaj Kaalin Charak Samhita*. Its means medicine taking between two morsels.

Ayurveddipika—Other Acharya says that *Graas and Graasantar* two different *Bheshaj Sevan Kaal* but Acharya Chakrapanika consider as one and he said that mean drug taking between two morsels. [21] **Nishi**-*Nishi* is administration of the drug at night (bed time, before sleep) is ideal for the treatment of disease of parts of the body above the shoulders. **Ayurvedrasayan** -Acharya Hemadri has taken the name of *Nishi Kaal* replaced of *Naisham*. [24] **Sarvansunderi**— Here Acharya Arundutta has taken the name of *Nishi Kaal* same as *Ashtang hrudyam*. [24]. **Shashilekhatika**- Here Acharya Indu has taken the name of *Nisha Kaal* same as *Ashtang Samgrah*. [25] **Divas Bhojanai**-Acharya Sharangdhar says medicine taking during midday time meal. It applicable for anorexia, hiccough, convulsion, etc. [20] **Sayantne**-Acharya Sharangdhar says medicine taking between two morsels during evening time meal. It applicable for hoarseness of voice, etc. [20]

CONCLUSION— *Bheshaj sevan kaala* has been referred to by a variety of names and numbers by different Acharyas. *Bheshaja kaala* appears to be explained by the Acharyas in terms of our daily routine from dawn to night as well as the predominance of Dosha. According to what is noticed, *Nishi* is the last *Bheshaj Sevan kaal* and is observed in the evening. The first *Bhaishajya Kaala* stated by every Acharya is *Abhakta*, which is observed in the morning. *Shada aveksha kaala* seems to provide additional insight into this *Bheshaj sevan kaal*. The "*Shamana Bheshaj kaala*" is another name for this *Bheshaj sevan kaala*, which suggests that it should only be used while treating a patient with *Shaman Bheshaj* and not in the event of *Shodhana Chikitsa*.

This *Bheshaj sevan kaala* is irrelevant when a different route than oral administration is employed to give the drug. In Ayurvedic literature, *bheshaj sevan kala* is categorised because it has several various ways to deliver the drug. The Karana will make the decision in an endeavour to build *DhatuSamya*. There are 10

Bheshaj Sevana Kala, according to Charaka Samhita, Sushruta Samhita, and Ashtanghrudayam. Eleven is discussed in Ashtanga Sangraha, and Sarangadhara divided the Bheshaj Sevana Kala into five categories. The Bheshaj Sevana Kala was developed with Samana in mind; emergency situations should not call for its use. Possible Bheshaj Prinamakara Bhavas include Agni, Vayu, Kala, and Samyoga. Patients can be healed swiftly with the help of the proper Bheshaj Sevana Kala, which regulates the rate of Bheshaj's metabolism through Agni.

Conflict of interest- Nil

REFERENCE-

1. Lagoguey, M., and Reinberg, A. Circadian and circannual changes of pituitary hormones in health human males. In: Van cauter, E. and copinschi, G. (eds), Human pituitary hormones. The Hague: Martinus Nijhoff Publ., pp.261-285 (1981)
2. Gibson, T., Stimmler, L., Jarrett, R.J., Rutland P. and Shiu, M. Diurnal Variation in the effects of insulin on blood glucose, plasma non-esterified fatty acids and growth hormone. Diabetologia 11: 83-88,(1974).
3. Sensi, S., Capani, F., Tezzi M. and Del ponte, A. Further observations on time-related insulin effectiveness of glucose metabolism. Chronobiologia 2(suppl): 62-63 (1975).
4. Mitra ProfJ. Ashtang samgraha,, shashilekha teeka. Sutrasthan 1/3,page no 2. Varanasi: Chaukhamba Sanskrit series office; 2006.
5. Shastri K. Charaka Samhita. Vol. 1.Vimansthana 8/6 page 737.Choukhambha Bharti Varanasi; 2018
6. Shastri K. Charaka Samhita. Vol.1 Vimansthana 1/21(6)page 682 . Choukhambha Bharti Varanasi; 2018
7. Vaidya JT. Charak Samhita Ayurved dipika tika. Vol. vimansthan 1/21(6),page no.236,Choukhambha Orientalia; 2015.
8. Shastri K, Chaturvedi DrGoraknath. Charak samhita. Vols. 1 sutrasthan 6/5. page no.135 Varanasi: Chaukhamba Bharti Academy; 2018
9. Shastri K, Chaturvedi DrGoraknath. Charak samhita. Vols. 1 sutrasthan 6/4 page no.134,. varanasi: Chaukhamba Bharti Academy; 2018.
10. Shastri K, Chaturvedi DrGoraknath. Charak samhita. Vols. 1 sutrasthan 1/24. page no.8 Varanasi: Chaukhamba Bharti Academy; 2018
11. Shastri K, Chaturvedi DrGoraknath. Charak samhita. Vols. II Chikitsasthan 30/292. Page no.880,varanasi: Chaukhamba Bharti Academy; 2018
11. Nema DrN, Mishra DrPK. A Conceptual Review Of Bheshaj Sevana Kala In Ayurveda Siddhanta. Wjpmr. 4(6)(2455-3301):56–61.
12. Shastri K, Chaturvedi DrGoraknath. Charak samhita. Vols. II Chikitsasthan 30/296. Page no.880,varanasi: Chaukhamba Bharti Academy; 2018
13. Bankar Rahul, Solankar Ranjit. Concept Of Aushad Sevan Kaal And Its Correlation With Drug Actions: An Ayurveda Review. wjpmr. 2020;6[2] 121-123(2455-3301).
14. 12.Mitra ProfJ. Ashtang samgraha, with shashilekha teeka. Sutrasthan 1/56,page no 9. Varanasi: Chaukhamba Sanskrit series office; 2006.
15. Shastri K, Chaturvedi DrGoraknath. Charak samhita. Vols. II Chikitsasthan 30/297. Page no.880,varanasi: Chaukhamba Bharti Academy; 2018
16. Shastri KA. Susruta samhita . Vols. 2,uttartantra 64/65. Page no.488,varanasi: Chaukhambha Sanskrit Sansthan; 2005.
17. Kunte AM, Shastri Navare krsna R, Paradakara Vaidya BH. AshtangHrudayam composed by Vagbhatt. 9th ed. Vol. sutrasthan 13/37,page no 218. Varanasi: Chaukhambha Orientalia; 2005.
18. Mitra ProfJ. Ashtang samgraha, with shashilekha teeka. Sutrasthan 23/13,page no 179 Varanasi: Chaukhamba Sanskrit series office; 2006.
19. Shrivastav DrSS. Sharangdhar Samhita. Vol. Purvakhanda, 2/2-3. Varanasi: Chaukhamba Orientalia; 2003.
20. Vaidya JT. Charak Samhita Ayurved dipika tika. Vol. Chikitsasthan 30/296-312,page no.646-647,Choukhambha Orientalia; 2015.
21. 19. Trikram ji, Y ji. Sushrut Samhita,Dalhan teeka. Vol. uttartantra 64/67-84. Varanasi: Chaukhamba surbharti prakasan,; 2018.
22. Kunte AM, Shastri Navare krsna R, Paradakara Vaidya BH. AshtangHrudayam composed by Vagbhatt.

- 9th ed. Arundutt sarvang sundari tika, Vol. sutrasthan 13/37, page no 218. Varanasi: Chaukhambha Orientalia; 2005
23. Kunte AM, Shastri Navare krsna R, Paradakara Vaidya BH. AshtangHrudayam composed by Vagbhatt. 9th ed. Hemadri Ayurved Rasayan tika, Vol. sutrasthan 13/37, page no 218. Varanasi: Chaukhambha Orientalia; 2005
24. Mitra ProfJ. Ashtang samgraha, with shashilekha teeka. Sutrasthan 23/13, page no 179
Varanasi: Chaukhamba Sanskrit series office; 2006.
25. Chokhar SL, Aadhav PR, Khalid M, Gite y. Bheshaj sevana kala - described in samhitas in ayurveda. Ayurpharm Int J Ayur Alli Sci., 2016; Vol. 5 , No. 2 table no.4, Pages 32(2278-4772).
26. Kantadev RR. Shabdakalpdrum. Vol. 1,5/4/37 Page No. 307. Chaukhamba Surbharati prakashan, Varanasi; edition-2015
27. Mitra ProfJ. Ashtang samgraha, with shashilekha teeka. Sutrasthan 4/2, page no 26.
Varanasi: Chaukhamba Sanskrit series office; 2006.
28. Kunte AM, Shastri Navare krsna R, Paradakara Vaidya BH. AshtangHrudayam composed by Vagbhatt. 9th ed. Vol. sutrasthan 1/24, page no 15. Varanasi: Chaukhambha Orientalia; 2005.
29. Sahu NS, Kumar H, Bhardwaj V. Critical review on Bheshaj sevana kala - described in ayurveda samhitas. International ayurvedic medical journal. 2022, page no.3130(2320-5091)
30. Chokhar SL, Aadhav PR, Khalid M, Gite y. Bheshaj sevana kala - described in samhitas in ayurveda. Ayurpharm Int J Ayur Alli Sci., 2016; Vol. 5 , No. 2, table no.3, Pages 31(2278-4772).
31. Chokhar SL, Aadhav PR, Khalid M, Gite y. Bheshaj sevana kala - described in samhitas in ayurveda. Ayurpharm Int J Ayur Alli Sci., 2016; Vol. 5 , No. 2, table no.5, Pages 32(2278-4772).
32. Junjarwad AV, Savalgi PB, Vyas MK. Critical review on Bhaishajya Kaala (time of drug administration) in Ayurveda. Ayu. 2013 Jan;34(1):6-10. Doi: 10.4103/0974-8520.115436. PMID:24049398; PMCID: PMC3764882.

