Bheshaja Sevana Kala

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Abstract

The specific time that patients take their medication is very important as it has significant impact on treatment success. The pharmacokinetics and pharmacodynamics of an Ayurvedic medication is directly affected by biological activities of the body. The effectiveness of many drugs depends on the dosage administration time.

In Ayurveda it has been told that rhythmic changes in the predominance of bodily Doshas occur. (Ashtanga Hridaya Sutrasthana 1/7-8). Bheshaja Sevana Kala based on this concept of Doshas. Aacharyas have mentioned Bheshaja Sevana Kala in varying numbers. An attempt to correlate these Kala has been made. In the modern science this concept of timed dosage is known as chronotherapeutics.

It was seen that all the Kalas can be incorporated in only five Kalas told by Sharangdhara.

Keywords: Chronotherapeutics; Pharmacodynamics; Pharmacokinetics; Bheshaja Sevana Kala

Introduction

Chronotherapeutics refers to a treatment method in which in vivo drug availability is timed to match rhythms of disease, in order to optimize therapeutic outcomes and minimize side effects. It is based on the observation that there is an interdependent relationship between peak-to-trough rhythmic activity in disease symptoms and risk factors, pharmacologic sensitivity, and pharmacokinetics of many drugs.

The pharmacokinetics and pharmacodynamics of an Ayurvedic medication is directly affected by biological activities of the body. The effectiveness of many drugs depends on the dosage administration time. In Ayurveda it has been mentioned that, the predictable variations in bodily functions during day, season and age alters the severity of disease symptoms, results of diagnostic tests and effects of drugs and other therapies [1].

Bheshaja Sevena Kala is meant for proper time of drug administration. Ancient texts of Ayurveda have described different types of Bheshaja Sevena Kala. We get references regarding Bheshaja Sevena Kala in classical texts like Ashtanga Sangraha and Hridaya, Charaka, Sushruta and Sharangdhara Samhitas. Classification from Ashtanga Sangraha Sutrasthana 23/12-21 is considered in this study, as maximum number of Kalas is explained by Acharya Vagbhata [2].

Here an attempt is made to draw a parallel between the opinions of different Acharyas (Table 1)

| Niranna kala |
|--------------|
| Bheshaja is administered on empty stomach. Hemadri quotes that once the consumed food is digested, Bheshaja is given and after its digestion, food is given. According to Indu [3], it is mentioned Bheshaja is to be given on empty stomach, but two hours after sunrise. In this kala, Amashaya and Strotasas are devoid of Kapha. |

Action of Bheshaja

- Highly potent as there is no contact of Bheshaja with food.
- Interaction between Agni and Bheshaja is unhindered due to absence of food.

Pragbhakta kala

Bheshaja is administered before meals. According to Hemadri, Bheshaja intake is immediately followed by food.

Action of Bheshaja

- No Balakshaya as the Bheshaja is followed by food; hence it becomes the first target of Agni and not the food.
- No regurgitation of Bheshaja occurs as it is followed by food.
- The Bheshaja directly acts on the Amashaya and the vitiated Doshas [5].

Indications

- Apanavayu Vikruti
- Diseases like debility, weakness of lower parts of body,
Bheshaja Sevana Kala

As previously consumed food gets digested, Bheshaja is administered; after metabolism of Bheshaja, again food is taken in the evening.

**Action of Bheshaja**
- It shows Hrudya, Pathya, Deepana and Manobalakara effect.
- Due to Madhyanha i.e. Pittakala, Agni is in a stimulated condition. So Bheshaja is properly metabolized in this kala.

**Indications**
- Vyanavayu Vikruti
- Vyanavarujanya- Napunsakata (deblility), Shopha, Jvara, Udansita (depression), body ache, tingling, numbness, Kushtha, Visarpa.

**Sabhakta kala**

Bheshaja is mixed with food. Indu also opines the same.

**Action of Bheshaja**
- To potentiate Agnibala.
- The drug mixes with Rasadhatu along with food and spreads all over the body through Urdhva, Adhah and Tiryak Gati and helps in Sarvanga samshrita vyadhis.

**Indications**
- Arochaka, Aruchi, Sarvanga samshrita Vyadhis like Kustha.
- In weaker sections like women, old age, children, debilitated patients and those who reluctant to take medicines.

**Samudga kala**

Bheshaja is administered just before and immediately after food. Indu and Hemadri also opines the same.

**Action of bheshaja**
- It helps in correcting the Gati (activity) Vikruti of Vata Dosha by promoting Anulomana of Vata Dosha. E.g.
  1) Hikka- Kapha and Vata Doshas are involved. Kapha is situated in the Urdhvashara while Vata in the Adhahshara. Bheshaja administered in the Samudga Kala pacifies Doshas from upper and lower parts of body.
  2) Ashepak- Doshas are localized in Pani and Pada. Samudga Bheshaja acts on both the extremities of the body.

### Table 1: Bheshaja Sevan Kala according to different authors has been shown in the above table.

| S. No. | Ashtanga Sanghrahana | Astanga Hridaya | Charak Samhita | Sushruta Samhita | Sharangdhara Samhita |
|--------|----------------------|----------------|----------------|------------------|---------------------|
| 1      | Abhakta              | Ananna         | Bhaktadau-1    | Abhakta          | Suryodaya jatah     |
| 2      | Pragbhakta           | Annadau        | Bhaktadau-2    | Pragbhakta       | Divasa Bhojane      |
| 3      | Madhyebhakta         | Madhya         | Bhuktamadhye   | Adhobhakta       | Saayam Bhojane      |
| 4      | Adhobhakta           | Ante           | Bhuktapaschyat1| Madhyebhakta     |                     |
| 5      | Sabhakta             | Kavalantara    | Bhuktapaschyat2| Antarabhakta     |                     |
| 6      | Antarabhakta         | Grasa          | Muhurmuhu      | Sabhakta         |                     |
| 7      | Samudga              | Muhurmuhu      | Samudga        | Muhurmuhu        | Nishi               |
| 8      | Muhurmuhu            | Sa anna         | Bhaktasanyukta | Muhurmuhu        |                     |
| 9      | Grasa                | Samudga        | Sagra          | Grasa            |                     |
| 10     | Grasantar            | Nishi          | Grasantar      | Grasantar        |                     |
| 11     | Nishi                |                |                |                  |                     |

**Madhyayabhaka kala**

Bheshaja is administered in between the meal. According to Chakrapani and Indu, half portion of the food is taken initially, followed by Bheshaja administration, and again followed by remaining food.

**Action of Bheshaja**
- The Urdhvwagati and Adhahgati of Bheshaja is restricted by food hence is forced to act locally and therefore helps to cure Sthanik Doshas.
- As Samana Vayu and Pachaka Pitta are both situated in the Koshtha, this Kala helps to control Pittaja and koshthagata vyadhis, Samanavayudushi.

**Indications**
- Samanavayu Vikruti.
- MandAgni
- Koshthagatayadhi, Pakvashayagata Vyadhi, Shula, Gulma, Grabani.

**Adhobhakta kala**

In this kala, Bheshaja is administered after meals. According to Hemadri and Indu, Bheshaja is to be administered immediately after meals. In Vyanavikruti, Bheshaja is administered after lunch while in Udanavikruti, it is administered after dinner.

**Action of Bheshaja**
- After lunch- stimulation of Vyana Vayu.
- After dinner- stimulation of Udana Vayu. As Udanavayu facilitates the Urdhagati of Bheshaja, it strengthens the upper part of body, especially the sense organs.

**Indications**
- Vyanavayu and Udanavayu Vikruti.
- Vyanavarujanya- Napunsakata (deblility), Shopha, Jvara, Udansita (depression), body ache, tingling, numbness, Kushtha, Visarpa.

Udanavayyanja-Gala vikar, Chhardi, Aruchi, Pinasa, Galaganda, Urdhvajatragata Vyadhi
• It promotes Urdhva and Adhah Gati of the drug.

**Indications**

- Vyana-Apana-Udanavaya vikruti.
- Type of Dravya used to administer are Avaleha, Churna.
- Hikka, Kampa, Akshepaka, Vataja Prameha, Shukradosha.

**Muhurmuhala kala**

Bheshaja is frequently administered irrespective of Bhukta or Abhuktavastha. It can be given for licking.

**Action of Bheshaja**

- Sublingual absorption provides faster relief. Therefore can be used in life threatening diseases.
- Treats the vitiated doshas in their Sanchaya and Vegavastha.

**Indications**

- Pranavaha strotogata Vyadhi- Shvasa, Kasa, Hikka.
- Udakavaha strotogata Vyadhi - Trishna.
- Annavaha strotogata Vyadhi - Chhardi, Visha.

**Grasantara kala**

Bheshaja is administered irrelevent to food, According to Arunadatta and Henadri, Bheshaja is to be mixed with each bolus of food. This is somewhat similar to Samudga kala.

**Action of Bheshaja**

- Sargas Bheshaja facilitates absorption of the Bheshaja right from the buccal mucosa.
- Direct absorption from buccal mucosa in systemic circulation offers rapid onset of action.
- Grasa Kala Bheshaja stimulates the Pranavaya. So the Indriya and Chitta prasadana take place. This enhances the Prabhava of Vrishiya Dravyas.

**Indications**

- Pranavayuvikruti like Pinasa, Ardita, Trusha, Shwasa.

**Grasa kala**

Bheshaja is administered between each and every bolus of food. According to Arunadatta and Henadri, Bheshaja is to be mixed with each bolus of food. This is somewhat similar to Samudga kala.

**Action of Bheshaja**

- Sargas Bheshaja facilitates absorption of the Bheshaja right from the buccal mucosa.
- Direct absorption from buccal mucosa in systemic circulation offers rapid onset of action.
- Grasa Kala Bheshaja stimulates the Pranavaya. So the Indriya and Chitta prasadana take place. This enhances the Prabhava of Vrishiya Dravyas.

**Indications**

- Pranavayuvikruti like Pinasa, Ardita, Trusha, Shwasa.

**Nisha Kala**

* Nisha Kala is the time after the evening meal is digested. Indu opines the same. While Sharangadhara has mentioned it is an Anannavastha. The purpose of this kala is for Anulomana and Brimhana.

**Action of Bheshaja**

- Selective action of the Bheshaja towards the Urdhvajatrugata parts.
- Chiraparinamana (long lasting action) of the Shamana Aushadhi is achieved as no food intake occurs until the next morning [6,7].

**Indications**

- Kapha Dosha Vikruti
- Urdhvajatrugata Vyadhi.

**Discussion**

The specific time that patients take their medication is very important as it has significant impact on treatment success. If symptoms of a disease display circadian variation, drug release should also vary over time. Since it seems that timing of drug administration in disease therapy has significant impact upon treatment success, chronotherapeutics remains an important area for continuing research. In Ayurveda Bhaishajya Kalas are described in relation to food, they are meant for Shaman Chikitsa only and the root of administration to all Kala is oral. Although the number of Bheshaja Sevana Kala told by Aacharya Vaghbhata and Charaka are more, they can be incorporated in Bheshaja Sevana Kala told by Aacharya Sharangadhara. Bhaktadatu, Abhakta and Pragbhakta can be included in Suryodayahataha. Madhyabhakta, Adhobhakta (after morning meal), Antarabha, Samudga (before and after morning meal) can be included in Divasa Bhojana. Adhobhakta (after evening meal), Samudga (before and after evening meal), Grasa, Grasanta can be included in Saayam Bhojana.

Hence, Vaidya with detailed and accurate knowledge about Bheshaja Sevana Kala can treat patient more effectively.

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