CLINICAL RELEVANCE OF AUSHADHA SEVANA KAALI

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INTRODUCTION

• Acharya charaka mentions while treating any disease, one should consider Desha, kala pramana, satmya, asatmya, pathya and apathyya to get desired outcome of any treatment.

देशकालप्रमाणानां सात्म्यासात्म्यस्य चैव हि
सम्ययोगोः न्यथा होषां पथ्यमप्यन्यथा भवेत्

• Aushadha sevaa kala / Bhaishajya kaala is one of the important principle to be considered while treating the diseases. Among above mentioned seven factors, Kaala has been given 2nd place which reflects the importance of kaala (Bhaishajya kaala) in treatment.

• Kaala is cosidered as nimitta karana(reason) for all the types of karya(action).

• Synonyms: Bhaishajya kaala, Bheshaja kaala, Bhaishajya grahana kaala , Aushadha avachaarana kaala. Agada kaala.
FACTORS DECIDING AUSHADHA KAALA
- Potency of the drug
- Tolerance capacity of the person
- Pathological process of the disease

SHADVIDHA KAALA OF ACHARYA CHARAKA
- Dina Aveksha Kaala (based on different times of the day: morning, noon, evening or night)
- Atura Aveksha Kaala (depending on different patient: like different prakruti etc)
- Bheshaja Aveksha Kaala (depending on different types of medicine)
- Vyadhi Aveksha Kaala (different diseases)
- Jeernalinga Aveksha Kaala (different time of digestion of food or medicine)
- Rutu Aveksha Kaala (different ritu)

दिनातृौषधव्याधिजीर्णलिङ्कत्ववेक्षणम् ।
कालं विद्याद्विनवेक्षः ..........cha chi 30/296
Number of different Aushadha sevana kaala by different Acharya

10 kaala : Charaka Samhitha (cha chi 30/297)
          Sushruta Samhita (Sush utt 64/65)
          Ashtanga Hridaya (Ash Sut 13/37)
          Kashyapa samhita (Ka kila 3/34)

11 kaala : Ashtaga Sangraha (Ash sang sut 23/12)

05 kaala : Sharangadhara samhita (Purva khanda 2/1-12)
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<th>CHARAKA</th>
<th>SUSHRUTA</th>
<th>VAGBHATA</th>
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चरकसंहिता चिकित्सास्थानम् - ३०. योनिव्याप्चिकित्सितम्

दिनातुरौषध्याधिजीर्णिलिङ्गविक्षणम् [३]।
कालं विद्यादिनावेक्ष: पूवहि वमनं यथा।।२९६।।
रोगवेक्षो यथा प्रातारित्रसो बलवान् पिबेत।
भेषजं लघुपथ्यात्रैयुक्तमद्यात्तु दुर्बल:।।२९७।।
भैषज्यकालो भुक्तादौ मध्ये पश्चान्मुहर्मुहः।
सामुद्रं भक्तसंयुक्तं ग्रासग्रासान्तरे दश।।२९८।।
अपाने विगुणे पूर्व, समाने मध्यभोजनम्।
व्याने [३] तु प्रातरशितमदाने भोजनीतरम्।।२९९।।
वायो प्राणे प्रदुः तु ग्रासग्रासान्तरिष्टते।
श्वासकात्पिपसासासु त्ववचार्य मुहर्मुहः।।३००।।
सामुद्रं हिक्किने देय लघुनास्त्रेण संयुतम्।
सम्भोज्यं त्वीषधं भोज्यविशिष्टित्रैरुची हितम्।।३०१।।
ज्वरे पेय: कषायाश्च क्षीरं सर्पिविरचनम्।
षडद्वेगमोक्षी लघुता विशुद्धिर्जीर्णिलक्षणम्।
तदा भेषजमादैयं स्याध्वि दोषवदन्यथा।।३०३।।
सुश्रुतसांहिता उत्तरतन्त्रम् - ६४. स्वस्थवृत्ताथ्यायः

अत ऊर्ध्व दशौषधकालान् वक्ष्यामः |
तत्राभक्तं [१] प्रागभक्तमधोभक्तं मध्येभक्तमन्तराभक्तं सभक्तं सामुद्रं मुहुर्मुर्ग्रासं ग्रासान्तरं |
चैति दशौषधकाला: ||६५||

अष्टाङ्गहृदयम् सूत्रस्थानम् - १३. दोषोपक्रमणीयाथ्यायः

सम्प्रत्यौषधकालान् दर्शयन्नाह - - - -

युञ्ज्यादन्त्रमन्नादौ मध्येन्न्तो कवलान्तरे |
ग्रासे ग्रासे मुहं सान्त सामुद्रं निशिचौषधम् |३७||
Abhakta(Niranna)

DESCRIPTION:
• Ananna, Nirbhukta, Suryodaye Jaate are the synonyms of the above Kaala.
  Chakrpaani - It should be given before meals in the morning.
• Hemadri – Aushadha is given after digestion of food.
• Indu - It should be given after one Yaama(three hours)after sunrise.

Contra Indications:
Baala, Vridha, Vanita, Mridu persons in order to avoid glani and bala kshaya.

Activity of Aushadha:
• Highly potent due to No Contact of Aushadha with food.
• Aushadha Virya - Unchanged.
• Agni & Aushadha - Interaction unobstructed due to absence of food
Pragbhakta: Administered before meals.

DESCRIPTION:
• Prak Bhojana, Bhojana Agre, Poorva Bhaktashaya, are the synonyms.

Activity of Aushadha:
Ashupaka of Aushadha
No balakshaya, as the food follows the Aushadha.
No mechanical expulsion of Aushadha, due to intake of food.(Urdhwagati Pratibandha).

Indications:
 a. Apana vayu vikruti
 b. Vriddha, Shishu, Bheeru, Krisha
**Adhobhakta Kala**: Bheshaja is administered after meals (after lunch & dinner).

**DESCRIPTION:**
- Hemadri & Indu- Aushadha is to be administered immediately after meals.
- Vyanavikruti- Aushadha is administered after lunch.
- Udanavikruti- Aushadha is administered after dinner.

**Indications:**
Dosha- Vyanavayu Vikruti, Udanavayu Vikruti
Disease-
Vyanavayujanya- napunsakata, debility, shopha, jvara, depression, body ache, tingling, numbness, kushtha, visarpa. Udanavayujanya- throat-infections, depression, chhardi, aruchi, pinasa, galaganda, urdhvajatrugata vyadhi, karshya.

**Activity of Aushadha:**
The Udanavayu fascilitates the urdhvagati of Aushadha, thereby strengthening the upper parts of body esp. the sense organs.
Madhyabhakta Kala: Aushadha is administered in between meals

DESCRIPTION:
• Chakrapani & Indu- 50% food intake → Aushadha → remaining food intake.

Indications:
• Dosha- Samanavayu Vikruti, pitta vikruti
• Agni- Mandagni
• Diseases- Koshthagatavyadhi, Pakvashayagata vyadhi, Shula, Gulma, Grahani

Activity of Aushadha:
• Bhesha- acts locally & eradicates the Sthanic doshas.
• Stimulaton of the Samana vayu.
Antar Bhakta: Administration of food between two meals.

**DESCRIPTION:**
Previously consumed food is digested, Aushadha consumed; after metabolism of Aushadha, again food is taken in the evening.

**Indications:**
Dosha- Vyanavayu Disease-
Vyanavayujanya- napunsakata, kshaya, shopha, jvara, depression, body ache, tingling, numbness, kushta, visarpa.

**Activity of Aushadha:**
It shows Hrudya, Pathya, Deepana & Manobalakara effect.
**Sabhakta Kala :** Aushadha is given mixed with food.

**DESCRIPTION:**
Indu- Bhesaja is processed or cooked along with food or it is given with food.

**Indications:**
Disease- Arochaka, aruchi, sarvangasamshrita vyadhis
Patients- sukumara, vriddha, baala, debilitated patients & those who exhibit unpalatability to medicines.

**Activity of Aushadha:**
To potentiate the Agni-Bala.
**Samudga Kala**: Bhashaja is administered immediately before & after food.

**DESCRIPTION:**
Indu, Hemadri-- Bhashaja should be consumed immediately in relation to food. Bhashaja acts as a Samudga (Box) for Ahara.

**Indications:**
Dosha- Vyana-Apana-Udanavayu
Type of Dravya- Pachana, Avaleha, Churna
Disease- Hikka, Kampa, Akshepaka, Vataja Prameha, Shukradosha.

Patients- a patient who consumes light food.

**Activity of Aushadha:**
Corrects gati vikruti of Vata dosha by promoting anulomana of Vata dosha
Promotes Urdhva & Adhara Gati of the drug.
Muhurmuhu: *Aushadha is repeatedly taken with or without food.*

**DESCRIPTION:**
Bheshaja is frequently administered irrespective of Bhukta or Abhuktavastha.

**Indications:**
Disease-
- Pranavahastrotogata Vyadhi -- Shvasa, Kasa, Hikka Udakavahastrotogata
- Vyadhi -- Trishna.
- Annavahastrotogata Vyadhi -- Chardi, Visha

**Activity of Aushadha:**
- Sublingual absorption provides faster relief.
- High concentration of drug provides more bio-availability.
- Treats the vitiated doshas in their Sanchaya & Vegavastha.
**Grasa** : *Grasa means mixed along with each bolus of food.*

**DESCRIPTION:**
Arunadatta, Hemadri—Bheshaja is to be mixed with each morsel of food.

**Indications:**
- Dosha- Pranavayu
- Agni- To stimulate Agni
- Disease- Pranavayuvikruti (Pinasa, Ardita, trusha, Shvasa)

**Bheshaja**- Vajikarana Bheshaja (Churna, Leha, Deepana Dravya, Vati, Guti)

**Activity of Aushadha:**
Sagrasa Bheshaja facilitates absorption of the bheshaja right from the buccal mucosa.
- High concentration of drug in systemic circulation offers rapid onset of action.
Grasantara:
Grasantara means administration of Bhaishaj in between each bolus of food

Activity of Aushadha:
It helps in correcting the gati vikruti of Vata dosha by promoting anulomana of Vata dosha. Indications:
Dosha-Pranavayuvikruti
Type of Dravya- Leha
Disease- Pinasa, Ardita, Trisha, Shwasa, Hrudroga
**Nishi**: Administration of *Aushadha at night after digestion of consumed food*

**DESCRIPTION:**
Indu (A.S.Su.23/18)- Nishi Kala is the time after evening meal is digested and 3 hours have passed.
Sharangadhara- Anannavastha

**Indications:**
Dosha-Kapha
Type of Dravya- Pachana, Shamana
Disease- Urdhvajatrugata Vyadhi
Purpose- Lekhana, Brahmana
(Sa. S.P.1)

**Activity of Aushadha:**
Selective action of the Aushadha towards the urdhvajatrugata anga because the Adhara gati of drug is prevented by food
TYPES OF AUSHADHI DRAVYA AND BHAISHAJYA KAALA

- Rasayana Aushadhi – Abhakta (Pratah Kaala)
- Vajeekarana Aushadhi – Grasa Kaala
<table>
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<tr>
<th>SL NO</th>
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<th>INDICATION</th>
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<tr>
<td>01</td>
<td>ABHAKTA (WITHOUT FOOD)</td>
<td>Diseases of kapha origin, in severe ailments</td>
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<tr>
<td>02</td>
<td>PRAGBHAKTA (BEFORE FOOD)</td>
<td>In vitiation of Apana vayu</td>
</tr>
<tr>
<td>03</td>
<td>MADHYABHAKTA (IN BETWEEN FOOD)</td>
<td>In vitiation of Samana vayu</td>
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<tr>
<td>04</td>
<td>ADHOBHAKTA (AFTER FOOD)</td>
<td>In vitiation of Vyana and udana vayu</td>
</tr>
<tr>
<td>05</td>
<td>SABHAKTA (BLENDED WITH FOOD)</td>
<td>In bala and conditions like Aruchi</td>
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<td>06</td>
<td>ANTABHAKTA (IN BETWEEN TWO MEALS)</td>
<td>In vitiation of Samana vayu</td>
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<td>07</td>
<td>SAMUDGA (BEFORE AND AFTER MEALS)</td>
<td>In conditions like Kampa, Apshepa, Hidma</td>
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<td>08</td>
<td>SAGRASA (WITH EACH BOLUS OF FOOD)</td>
<td>In vitiation of Prana vayu</td>
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<td>09</td>
<td>GRASANTARA (BEFORE EACH BOLUS OF FOOD)</td>
<td>In vitiation of Prana vayu</td>
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<tr>
<td>10</td>
<td>NISHI (NIGHT TIME)</td>
<td>Urdwajatrugata vyadhi</td>
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# FEW EXAMPLES

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<td>RASONA KALKA</td>
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Co-ordinating biological rhythms (Chronobiology) with medical treatment is called chronotherapy. It is the science concerned with variations in the pharmacological actions of various drugs over a biological timings and endogeneous periodicities.

**Pharmacology**: Pharmacon-Drug, Logos-Study. It deals with the interaction of administered chemical molecule with the living system.

**Chronobiopharmacology**: Chronos-Time, Bios-Life, Logos-Study. The science which deals with the phenomenon of circadian rhythmicity in living organisms.

**Biological rhythm /Circadian Rhythm** is a self-sustaining oscillation with the duration of time between the successive repetitions. Circadian clock in the brain co-ordinates daily physiological cycles I like sleep/awakw, temprature, digestio, hormones. Circadian rhythms are particularly important in medicines.
Additional factors to be considered with respect to chronotherapy are:

(i) Time of day, a drug is administered

(ii) Time related biological factors such as seasonal disorders.

(iii) Patients normal routines

(Ex: eating times and sleep patterns)

Utility of CHRONOTHERAPY

❖ Maximize effectiveness and minimize side effects

❖ Makes the drug more bio available

APPLICATIONS.

In the treatment of certain disorders like:

➢ Asthma
➢ Cancer
➢ Hypertension
➢ Multiple type of depression
➢ Seasonal affective disorders
➢ Bipolar disorders
To sum up: Most knowledge of medications has been derived from single- and multiple-dose investigations in which pharmacokinetic and pharmacodynamic phenomena have been evaluated following one, usually, daytime drug administration. Chronopharmacologic studies involving the evaluation of such phenomena after each of several different clock-hour treatments during the day- and nighttime reveal that biological rhythmic processes, such as those of 24 hr, can profoundly affect the kinetics and effects of various medications. Several new concepts have arisen based on findings from chronopharmacologic investigations, such as chronokinetics, chronesthesy and chronergy. These are defined and discussed herein using illustrative examples. A major goal of chronopharmacologic research is to devise chronotherapeutic interventions. Chronotherapeutics is the optimization of drug effects and/or minimization of toxicity by timing medications with regard to biological rhythms. Chronotherapeutics takes into account predictable administration-time-dependent variation in the pharmacokinetics of drugs as well as the susceptibility of target tissues due to temporal organization of physiochemical processes and functions of the body as circadian and other rhythms.
Thank you!!!

Any Query......???