Assessment of Agni (Digestive function) and Koshṭha (Bowel movement with special reference to Abhyantara snehana (Internal oleation)

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Abstract: This paper discusses formulae for assessment of the digestive function while administering internal oleation. The formulae have been developed on the basis of description in the classical Ayurvedic texts.

Panchakarma, a comprehensive and an integral part of Āyurvedic treatment and have its role in every therapeutic condition. Due to its long lasting and radical relief of chronic diseases, it is now developing globally.

Śodhanārtha Abhyantara Snehana (administration of oil internally for purification) forms the base for purificatory procedures and classical text have narrated regarding its utility. Snehana (oiling) decides the total outcome of the Shodhana Karma (purification procedure). Hence proper guideline are needed for performing the Snehapana (internal administration of oils) in controlled and effective manner and also for avoiding the Ayoga (insufficient use) and Ati-Yoga (excessive use) of Snehana (oleation therapy).

According to Charaka, dosage (matra) and timing (kala) constitute the basis for working out the logistics to standardize Snehana (oleation therapy). Agni (Digestive function) and Kostha (Alimentary tract) are the parameters to be taken into consideration.

ASSESSMENT OF AGNI:

Arunadatta commenting on A. H. Su-16/18, points out that the administration of Sneha (fats) without the consideration of Strength of Agni is irrational. According to Charaka (Vī. 8/89), Agni assessment depends upon the three components viz. Abhyaavaharaṇa Śakti, (capacity to eat), Jaraṇa Śakti (Capacity to digest) & Ruchi (appetite). Unless all are considered, no proper assessment of Agni can be done.

To decide the dose of Snehapāna day to day an index of capacity to eat (Abhyaavaharaṇa Śakti) was designed where the test dose is divided by the actual given dose. The result of more than 1 shows diminution of capacity to eat less than 1 shows increase in capacity to eat. Further, for calculating Agnibala, (strength of digestive function), Abhyaavaharaṇa index is to be multiplied with time required for digestion of the dose.

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A) Evaluation of Jaraṇa Śakti (Digestive capacity):

If digestion process is proper, and then at the end of digestion, Jeerṇa Āhāra Lakṣaṇa (signs of proper digestion) are seen (Ma.Ni.6/4). Utsāha, (enthusiasm), Laghutā (lightness), Udgāra Śuddhi (Clear eructation), Kshudhā (hunger)-Trishṇā (thirst) and Yathochita Malotsarga (bowel movement) are the symptoms of proper digestion.

The score system has been developed by considering each of the above symptom, for assessment of Jaraṇa Śakti. (capacity to digest)

**Scoring according to Jeerṇa Āhāra Lakṣaṇa (Signs of proper digestion):**

This scoring system is to be applied in a person who takes his normal required quantity of food.

| Lakṣaṇa          | Score | Remark |
|------------------|-------|--------|
| Absence of all the symptoms | 0     |        |
| Presence of one symptom       | 1     |        |
| Presence of two symptoms      | 2     |        |
| Presence of three symptoms    | 3     |        |
| Presence of four Symptoms     | 4     |        |
| Presence of All the five symptoms | 5   |        |

(B) Assessment for Abhyavaharaṇa Śakti (Capacity to eat):

This depend upon the quantity and quality of food, taken, which varies from person to person.

The scoring system is as follows

| Lakṣaṇa          | Score | Remark                       |
|------------------|-------|------------------------------|
| The person not at all taking food | 0     |                              |
| Person taking food in less quantity once in a day | 1     |                              |
| Taking food in less quantity twice a day | 2     |                              |
| Taking food in Moderate quantity twice a day | 3     |                              |
| Taking food in normal quantity twice a day | 4     |                              |
| Taking food in excessive quantity twice or thrice | 5     |                              |

(C) Evaluation for Ruchi factor (Appetite)

| Lakṣaṇa          | Score | Remark                  |
|------------------|-------|-------------------------|
| Totally unwilling for meal | 0     |                          |
| Unwilling for food, but could take the meal | 1     |                          |
| Willing towards only most liking food, and not to other | 2     |                          |
| Willing towards only one among Pungent, sour or sweet etc. food stuffs | 3     |                          |
| Willing towards some specific food or taste | 4     |                          |
| Equal willing towards all the food stuffs | 5     |                          |

According to the Avara (poor), Madhyama (moderate) and Pravara (best) type of Evaluation of Jaraṇa Śakti, Abhyavaharaṇa and Ruchi Śakti, the Agni Pattern should be assessed.

Assessment of Agnideepti (intensity of biological fire):
Agni Bala index was formulated by Varsha Badve et al (2000). During Snehapāna Agni Vriddhi (increase in digestive function) is expected. Though Sneha has opposite character of Agni, when it gets digested, it serves as a 'fuel' and ignites the fire further more. This ignited Agni has more power to digest even more quantity of Sneha, in the same stipulated time. Digestion period and quantity thus play a
very important role while calibrating the Agnibilā. As Agnibilā increases, the Digestion period is bound to decrease, when the same dose is provided or when the dose is increased, it is expected that the duration for its digestion will also increase in the same proportion.

For assessment of Agni (digestive function), Mātrā (dose) i.e. Abhyavaḥaraṇa Śakti (capacity to eat) and Kāla i.e., time required for the digestion of Sneha - both should be considered. Index of capacity to eat 'Abhyavaḥaraṇa Śakti ' will be calculated as follows-

A.I. (Abhyavaḥaraṇa Index)

Test dose / Given dose / day = T
D/ G D
for the first day , A.I= 30/30 = 1
(T.D.=G.D.)

If A.I. is more than 1, then it indicates decrease of Abhyavaḥaraṇa Śakti and if A.I. is less than 1, then it shows the improvement of Abhyavaḥaraṇa Śakti.

With the help of Abhyavaḥaraṇa Śakti, one can calculate Agnibilā. To set Agnibilā, we have to consider the second factor, i.e. Kāla - the time required to digest the given dose of Sneha.

By multiplying the A.I. with time (t) required for digestion, we can derive

ABI (Agni Bala Index) =
Test dose / Given dose X T
(Time taken for the Digestion of ghee)
E. g – in a person 30ml Sneha digests in 3 hrs on first day, Then the ABI = 30/30 X 3= 3.
In the same person 300ml digests in 6 hrs on last day, the ABI = 30/300X6 = 0.6. On the first day) ABI is 3, which is reduced to 0.6 on last day in the same person. But by mathematical calculation the person will take 30 hrs to digest 300 ml of Sneha. But as Agni Bala is increased, it digests in 6 hrs and the ABI is much less than expected.

Interpretation:

Lesser the ABI more will be the Agnideepṭi. Therefore ABI is taken as the Scoring system fordetermining Kshudhā Pravṛtti (onset of hunger).

Applied utility:

 For fixation of trial dose
 For increasing the dose of Sneha on subsequent days
 For achieving optimum, effective Snehana (oleation) in shorter period

ASESSMENT OF KOSHṬHA:

Koshṭha is the expression of bowel habit, which depends on Prakṛti (constitution).

Generally, a subject with complaints of constipation is considered as Krūra Koshṭha (dry and hard bowels). This judgement may be misleading as this may be an acquired condition and so it is important to distinguish between what is constitutional and what is acquired. Constitutional means the nature of bowel habit since from birth.

The bowel habits were examined in following way- frequency, consistency, straining or efforts, time taken for proper defecation, Satisfaction, previous encounters of diarrhea and constipation and previous experiences of Purgatives and Laxatives.

The above points regarding the Malapraṇātri were considered for the assessment of Koshṭha.

(1) Krūra Koshṭha (Hard bowel movements):
Doesn't pass stool regularly.
Hard and dry stools.
Requires straining
Requires long time for defecation.
Unsatisfactory bowel clearance.
Seldom encounters diarrhea and more frequently constipation.
Requires drastic purgatives,
No change in the bowels by test dose of Sneha (fats).
The person fulfilling the above criteria is to be decided as the person having Krūra Koshṭha.

(2) Mridu Koshṭha

Passes Stools daily once or twice regularly.
Semi formed or formed stools.
Easy defecation.
Less time required for defecation.
Satisfaction after defecation.
Previous encounters show often watery stools due to hot drinks, tea, milk.
Minor laxatives easily induces diarrhoea.
After the 30 ml test dose of Ghrita (ghee) passes stools slightly loose and frequency may be more.
The person fulfilling above criteria, is decided as of Mridu Koshṭha.

(3) Madhyama Kostha

Passes stools daily once
Formed stools
Requires minimum stress.
Little long time (in comparison to mridu).
Satisfaction after defecation.
Doesn't often encounter diarrhoea or constipation.
Requires medium dose of Purgatives and laxatives. Doesn't purge by 'not milk or minor laxatives.
After the intake of test dose of Ghrita (ghee), passes semi formed or formed stools once or twice.
The person fulfilling the above criteria is decided to be of Madhyama Kostha.

Applied utility:
The knowledge of Koshṭha helps in predicting the duration of Snehana as follows-
Krura Koshṭha – 7 days
Mridu Koshṭha – 3 days
Madhyama Kostha- 5days.

Conclusion: From above literature it is clear that, Acharyas (masters of Ayurveda) gave great importance to both Agni & Koshṭha while administering the Snehana Karma. So the above said assessment criteria should be incorporated in clinical practice for the effective and safer Snehana Karma.

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