EVALUATION OF THERAPEUTIC ROLE OF UPAVASA IN AYURVED

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ABSTRACT

Ayurveda the scientific way of life guides the humanity to combat sickness as well as to keep up and maintain supreme well-being. Ayurveda recognizes the viewpoint that fasting causes digestion of metabolic toxins which are not good for health. Agnimandya (weakened digestive fire) and ama (toxin) are considered to be the main reason for disease manifestation. It is stated in Ayurveda that fasting encourages digestive fire with exclusion of blockage in the channel which helps in reducing of effects of the disease. There are 10 types of langhana enlisted Ayurveda and Upavasa (Fasting) is one of them. Ayurveda guides three therapies for the well-being and health spiritual, psychological, rational/physical. Many experts believe that fasting is the mixture of all three. Upavasa (Fasting) is withdrawal of food for specific time periods. An advantage of fasting incorporates clarity of organs which are responsible for sense. During fasting person can feel the easiness of body as well as brain. It gives better feeling in diseased state. Collectively these things contribute to make individual feel energised. Ayurveda advocates fasting according to the avastha (sama) and strength of vyadhi and patient. The strength of the patient is decided on vaya, agni, kaala and dosha . Upavasa (Fasting) is advised precautionary and in addition remedial methodology. This article is a sincere effort to comprehend the therapeutic role of langhana (Upavasa) as non-invasive and evidence-based modality in the management of various diseases mentioned in Ayurveda.

Keywords: Agni, Agnimandya, Ama, Dosha, Fasting, Samavastha, Upavasa.

INTRODUCTION: Ayurveda advocates to protect health of the healthy and alleviate disorders in the diseased. It emphasizes on prevention from the diseases and promotion of health. Ayurveda has explained various such treatment modalities. One such is concept of Langhana (Upavasa). Langhana is been advised in many of the diseases as prime treatment or in Amavastha of the diseases and also according to the strength of the diseases and the patient and also as precautionary and preventive modality. Agnimandya leading to formation of Ama is the main reason for diseases manifestation. Ayurveda has advised Upavasa in initial / Amavastha of diseases at many instances. The lists of diseases are mentioned further. This indicates the therapeutic importance of Upavasa. By understanding the role of Upavasa in each disease and its co-relation to the concept of autophagy makes the concept of Upavasa unique and priceless therapy to stay healthy and to defeat diseases.

Upavasa is derived from ‘vas’ dhatu meaning to dwell and ‘ghnya’ prataya and starts with ‘Upa’ Upasarga (upa+vas+ghnya) meaning towards, near to, by the side of.1 To abide in a state of abstinence, abstain from food.2 Upavasa also means abstinence from krodha (anger) shokha (grief) lobha (greed)
mohadi (fascination) etc. It is considered as abstinence from all the 4 forms of food chewing, licking, swallowing and drinking. In Ayurveda it is stated that “aho ratribhojana abhavaha” which means the condition of withdrawal of food for a night. It is also considered as one type of fast along. Fasting is also revealed as “sarva bhoga vivarjana” which means abstaining from every single delight.

**Langhana and Upavasa:**

Langhana word derived from ‘langha’ dhatu and ‘lyut’ pratyaya. Langha dhatu indicates gati shoshana. “yat kinchit laaghvakaram dehe tat langhanam smrutam” In gross meaning it indicates the whole procedure of producing lightness in the body.

Anasana, apatarpana, laghubhojna, and upavasa are the synonyms of langhana. In Ayurvedic literature langhana and apatarpana are mostly used in context of Upavasa and literally convey the same meaning. Langhana as one of the shadhvidhopkrama and Upavasa as one of the types of langhana.

**Dipana, Pachana and Upavasa:**

Pachana: “Pachayati aamam na vahni kuryad yat taddhi pachanam” A Pachana dravya performs the digestion of the ahara but does not increase the agni. Acharya Acharya Charaka has advised pachana type of langhana in conditions like Chhardi (vomitting), Arisara (diarrhea), Jwara (fever), Gourava (heaviness) which predominantly involve kapha and pitta and the bala (patients and disease strength) is madhyama (medium).

Deepana: “Pachet na aamam vahnikruncha deepanam” Acharya Vagbhhat has included the deepana in 12 types of langhana. The definition of the deepana is described by Acharya Sharngdhara. Dravyas which increases the agni but does not digest the ama is known as a deepana dravya. Deepana dravyas are vayaviya in nature hence increases the agni. Increased agni digests the undigested food and does the shoshana of the kleda and produces the lightness of the body, hence is included in the types of the langhana.

Both Deepana and Pachana treatments are done through dravays (medicines). Until the ama is not treated there is no use of giving various medicines for curing the diseases; rather than the given drug will also convert into ama and the disease will increase.

Fasting/Upavasa is a type of adravya aushada. Fasting, in the absence of food in viscera brings about the digestion of metabolic toxins, kindles the digestive fire, removes the blockages in the channels and thereby aids in minimising the disease. It first causes amapachana due to which agnideepana appears.

**Upavasa and Fasting:**

Fast: abstain from all or some kinds of food or drink, an act or period of fasting. Upavasa: a fast, fasting (as a religious act comprising abstinence from all sensual gratifications, from perfumes, flowers, unguents, ornaments, betel, music, dancing etc, abstinence from food.).

**CLASSIFICATION OF LANGHANA**

Acharya Charak has mentioned 10 types of langhana 1. vamana (emesis) 2. virechan (purgation) 3. nasya (administration of drug through nasal cavity) 4. niruhbasti (administration of decoction through anus) 5. aatapseyvan (sun exposure) 6. pachan (digestive) 7. upavasa (fasting) 8. vyayama (exercise) 9. pipasa.
nigrah (control of thirst urge) 10. vayusevan (wind exposure). 15

Astanga hrudaya as mentioned 12 types of langhana and divided in shodhana 5 types raktaasravana (bloodletting) addition to above and shaman (6 types) deepan addition to above. 16

Acharya Charak has mentioned Trividha langhana 17

When the strength of vitiated dosha is less than langhana variety of apatarpana is to be advised. As a result of which there will be Vruddhi of agni and vayu which cures the disease similar to the drying of a pond consisting of very small quantity of water by the influence of wind and sun. 18

When the strength of vitiated dosha is medium then langhana pachana is advised. The langhana dravyas does the vruddhi of agni and vayu while the pachana dravyas does ama pachan. This is similar to the drying of a pond of water by the influence of dust, wind, and sun. 18

When the strength of vitiated dosha is extreme, doshavasechana (shodhana) is indicated. Doshavasechana removes Doshas similar to the emptying of water from a reservoir by opening the gates. 18

**Indication of Langhana**

Diseases caused by Amadosha are destroyed by langhana Upavasa. Also in amashaya samutta vyadhi langhana is the foremost treatment.

Also when the vyadhi bal is alpa pipaasa nigrah and upavasa are treatment advocated. 19

Langhana is indicated in amavastha (disorders of poor digestive activity) ,skin diseases , atisnigdha, abhishyandhi, bruhat sharira (those who poses corpulent body together with unctuousness and fluidity) ,pramudhata (unconscious ) in sheet pradhan hemant and shishir rutu (winter season November to Februaray), vaatvyadh (diseases due to the vitiation of vata) (as per avastha and dosh involved) 20

Indications of langhana upakrama as per Astanga hrudaya include conditions such as meha (diabetes) , ama dosha (disorders of poor digestive activity) ,atisnigdha (more of moistness, lubrication ) ,jwara (fever), urusthamba (stiffness of thighs) ,kushta (leprosy and other skin diseases) ,visarpa (herpes) , vidradhi (abscess) ,pleeha , shirorog , kantha and aakshiroga (diseases of spleen ,head,throat and eyes). 21

Similarly Yogratnakar has stated that aakshiroga (eye diseases) , kushiroga (ascities ,diarrhoea) , pratishaya (rhinitis), vrana (ulcer), jwara (fever) can totally be cured by langhana therapy within 5 days. 22

**Assessment of Samyak Upavasita And Langita Purusha Lakshana:**

Acharya Charaka states Proper elimination of flatus , urine and faeces , feeling of lightness of the body , purity of the chest , belching , throat ,and mouth ;disappearance of stupor and exhaustion , appearance of sweat and taste in the mouth , inability to bear hunger and thirst and absence of discomfort in the mind are the signs of langhana properly done. 23

In addition to above Acharya Vagbhat states vimal indriya (freshness or keenness of sense organs). 24 Also mentioned in Jwara chikitsa adhyay, langhana (anashana /upavasa) alleviates the aggravated doshas and stimulates the agni the body becomes light and there is appetite. 25

**Significance of Upavasa /Fasting**

The vitiated dosha in the body particularly the Amashaya reduce the intensity or impair the digestive fire and cause digestive impairment and produce ama (metabolic toxins) which is the root cause of all diseases. They together block the
minute channels of the body which results in various diseases.

Fasting has been practised since ancient times for religious, spiritual, physical and psychological purposes. As spiritual practise it is the oldest and most common form of asceticism and is found in virtually every religion and spiritual tradition. But nowadays spiritual fasting has not been practised in right manner. People tend to eat more on these days and also end up eating food stuffs which are heavy to digest sabudana (sago/tapioca pearls wafers), fruits, boiled potatoes etc.

In psychology, studies have suggested that fasting can alleviate the symptoms of some psychiatric conditions including depression and schizophrenia. In Buddhism fasting is recognized as one of the methods for practising self-control. The Buddha advised monk not to take solid food after noon. Buddhist monks and nuns following vinaya rules commonly do not eat each day after the noon meal. The Uposatha is a Buddhist day of observance in existence from the Buddha’s time and still being kept today in Buddhist countries. The Buddha taught that the Uposatha day is for the cleansing of the defiled mind resulting in inner calm and joy.

The Greek Physician Hippocrates states “Everyone has a physician inside him or her; we just have to help it in its work. The natural healing force within each one of us is the greatest force in getting well. Our food should be our medicine. Our medicine should be our food. But to eat when you are sick is to feed your sickness”.

According to experiment conducted on fasting rats at the centre for cellular and molecular biology Hyderabad the belief is scientifically true. Intestinal cells absorb more from the reserve food available in the body during starvation. Reserved food is stored in the body either as glycogen or fat. Glycogen a polymer of glucose is stored in liver and during non-availability of food certain enzymes break it down into glucose which provide energy to body. If one never fasts this enzyme system which breaks glycogen into glucose may not remain effective and therefore periodical fasting is considered beneficial to body.

Once the glycogen reserve is exhausted the adipose tissue comes to the rescue of fasting person. Prolonged fasting is not advisable as in fasting for longer periods the fat cells consumed become pathological. Further during fasting the cell membrane lining the intestine undergoes a reorientation program to achieve the maximum efficiency. The membrane cholesterol level goes down and hence the membrane becomes free and absorbs more during fasting. Fasting also has inhibitory effect on cell proliferation and also eliminates pre-neoplastic cells. Yoshinori Ohsumi a cellular biologist from Japan became a Nobel Prize winner in 2016 in physiology and medicine for discovery importance of autophagy for a large number of physiological processes such as adaption to fasting and Mechanism of Autophagy. These discoveries have opened new ways of understanding the fundamental response to an infection. Fasting detoxifies the body and boosts the immune system.

According to Wolowczuk immune enhancement is due to 3 factors.
Absence of burden of digestion that demands all the resources of the immune system.

b. lowered plasma viscosity due to less traffic in blood stream (less fatty sugar and proteins)

c. Increased nutrient assist in immune performance.

Mark Mattson a scientist with National Institute on Aging says that when we convert food into energy our bodies create a lot of by-products we could do without including free radicals. These free radicals will attack proteins, DNA, the nucleus of cells, the membranes of the cell.33

Mattson says they can damage all those different molecules in cells and hence fasting has numerous benefits from improving glucose regulation which can protect against diabetes to also lowering blood pressure. Some animal studies have also shown that partial fasting has very beneficial effects on the brain protecting against Alzheimer’s, Parkinson’s and Stroke.34

Partial fasting may even extend lifespan because eating less sends a message to the cells of the body that they should conserve and use energy more efficiently.

Misconception About Fasting:

Weight loss: losing weight is only one part of the picture but it can be and certainly important to maintain or restore good health.

Starvation: people think food is the only source of energy for our body. If they fast they will starve their body but fasting and starvation are two completely different. As long as the body supports itself on the stored reserves within its tissues and body functions are running smoothly.It is fasting when these stored reserves are used up have dropped to dangerously low level it becomes starvation.

Weakness: During fasting, if we miss our meal we feel giddiness weakness. The fact is just appeals during cleansing process of the body while fasting. When cleansing is completed body gains a new vigour and vitality.

Autophagy:
The controlled digestion of internal cell components is called autophagy.35

Level of autophagy increases when cells are starved or when cells are highly exposed to the accumulation of waste material. In this case, cells recycle the unwanted products by degradation and maintain all body functions.36

Upavasa/Fasting induce Autophagy.

Basically when we give fuel to mitochondria when they don’t need they release a large number of electrons which give rise of reactive oxygen species which act as free radicals. Then these free radicals not only damage mitochondrial but also nuclear DNA .37

Following are therapeutic indications of fasting in different diseases with respect to the stage or phase of the disease and the duration of fasting as explained in classics of Ayurveda.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Stage /Phase</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jwar</td>
<td>Saamavastha /initial stage</td>
<td>till niram lakshana seen</td>
</tr>
<tr>
<td></td>
<td>Vataj jwar</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td>Pittaj jwar</td>
<td>10 days</td>
</tr>
<tr>
<td>Condition</td>
<td>Treatment</td>
<td>Duration</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------</td>
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</tr>
<tr>
<td>Kaphaj jwar</td>
<td>rasagat</td>
<td>12 days</td>
</tr>
<tr>
<td>Dhatugat jwar</td>
<td>mamsagat</td>
<td></td>
</tr>
<tr>
<td>Raktpitta</td>
<td>initial stage, urdwa marg,</td>
<td>acc to strength of the</td>
</tr>
<tr>
<td>Sama kapha, sama pitta,</td>
<td>snigdha, ushna nidan</td>
<td></td>
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<tr>
<td>Gulma</td>
<td>Kapha pradhan</td>
<td></td>
</tr>
<tr>
<td>Prameha</td>
<td>Kapha pradhan</td>
<td></td>
</tr>
<tr>
<td>Shoth</td>
<td>Amajanya</td>
<td></td>
</tr>
<tr>
<td>Arsha</td>
<td>strength of patient is minimal</td>
<td></td>
</tr>
<tr>
<td>Grahini</td>
<td>aahar ras associated with ama has</td>
<td></td>
</tr>
<tr>
<td></td>
<td>circulated in whole body</td>
<td>till ama digested</td>
</tr>
<tr>
<td>Atisaara</td>
<td>initial stage, vyadhi bala minimal</td>
<td>till ama gets digested</td>
</tr>
<tr>
<td>Chardi</td>
<td>amavastha, minimal dosha</td>
<td>till ama gets digested</td>
</tr>
<tr>
<td>Visarpa</td>
<td>kaphasthan/kaphapradhan</td>
<td></td>
</tr>
<tr>
<td>Madatya</td>
<td>kapha pradhan</td>
<td></td>
</tr>
<tr>
<td>Hrudroga</td>
<td>kaphaj, sannipataj, krumija</td>
<td></td>
</tr>
<tr>
<td>Pravahika</td>
<td>atisaarukta chikitsa</td>
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<td>Annaj Shool</td>
<td>avipaak</td>
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<tr>
<td>Kukshishool</td>
<td>agnimandya</td>
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<td>amajeerna</td>
<td></td>
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<tr>
<td></td>
<td>Vidagdhajirna</td>
<td></td>
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<tr>
<td>Aadhamana</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amavata</td>
<td>aamaj, srotorodha</td>
<td>till niram lakshana seen</td>
</tr>
<tr>
<td>Abhishyandh</td>
<td>samavastha</td>
<td>4 Days</td>
</tr>
<tr>
<td>Pratishya</td>
<td>samavastha with fever</td>
<td>5 nights</td>
</tr>
<tr>
<td>-----------</td>
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<td>----------</td>
</tr>
<tr>
<td>Netraroga</td>
<td>abhishyandi/ samavastha</td>
<td>3 nights (dalhana)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 nights (yogratnakar)</td>
</tr>
</tbody>
</table>

**Udarroga**

**Vran**

<table>
<thead>
<tr>
<th>Annavaha srotas</th>
<th>amavastha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amashaya gat vata</td>
<td></td>
</tr>
<tr>
<td>Rakthavaha srotas</td>
<td></td>
</tr>
<tr>
<td>Avabahuka</td>
<td>Samavastha</td>
</tr>
</tbody>
</table>

Hence to conclude from above mentioned table, upavasa is been advised
Wherever ama is underlying cause in pathogenesis of diseases,
In initial stage of diseases (amavastha) , Strength of dosha is less and when patient bala (strength) is medium,
In atipravrutti (excessive flow of tissue elements in the channels), srotorodha (blockage in the channels), santarpanjanya vyadhi (diseases caused by over-nourishment), amashaya samutha vyadhi (diseases having origin from stomach), rasa pradosha vyadhi (diseases from vitiation of rasa dhatu)
Mostly in kaphaj pittaj type and also sometimes in vataj as per the patient strength.

**DISCUSSION**:

*In the management of ama Upavasa is the ideal line of treatment. Bhava Prakasha in the context of jwara considers langhana as upavasa*. 38. As in all amashaya samutha diseases , Upavasa can be considered as the ideal method of langhana 39. This is also because of unsuitability of the other methods of langhana, four kinds of purifications cannot be employed in many diseased conditions because samshodhana is contraindicated in the samavastha of a many diseases 40. Pipasa cannot be employed because in morbid patients jala is pranadharaka 41. Maruta and atapa sevana are less efficient for jatharagni impairment when compared to upavasa. Here Maruta is the vayu(wind) outside the body. Certain types of maruta from particular direction is told to be diseases causing and some maruta from other directions has been told to be healthy, also though exposure to the wind causes lightness but if it is cold wind , it is not so effective. Maruta (wind) does not always exist. Atapa can aggravate pitta in pitta prakriti. Also Maruta and Atapa Sevana are been advised in balvan rogi( patient) and madhyam bala roga (diseases ). Deepana pachana cannot be employed as agni affected by ama is incapable of dosha, ahaara and oushadha pachana 42. Vyayama is incompatible in alpa bala patients 43. For these reasons upavasa is
the ideal method of achieving langhana which can be achieved by anashana or alpabhojana. The langhana thus achieved will have amapachana effects at the koshta level as well as sarvadehika level. Mode of action of the Upavasa can be understood in the following manner, if Agni does not get fuel in the form of food, it starts digesting Dosha. Agni for its existence needs a constant feed of fuel. As a routine the food serves as the fuel. In the absence of food in preliminary stage Agni uses Dosha as fuel. This special property of Agni is used as treatment modality. The mode of action of Upavasa can also be understood with the help of modern science. If the consumption of the glucose is decreased, the glycogen, then fat, and in the last stage, protein, is broken down for the supply of glucose to the tissue, which is similar to the view of Ayurveda.

Acharya Vagbhata has mentioned that Langhana, Decreases the Dosha, Increases the Agni Hence it increases the Swasthya, Kshudha, Trishna, Ruchi, Agnibala and Ojas.

CONCLUSION: In these recent years modern scientists have discovered the importance of fasting and autophagy. But Acharyas had already mentioned the importance of Upavasa, langhana in many diseases and as preventive measure and has aptly suggested “langhanam Paramaushhadam.” It can be considered as costless therapy of Ayurveda.

Due to fast paced life unhealthy eating habits and defective lifestyle many amajanya diseases are on rise where in fasting upavasa becomes the main treatment modality in initial stage because in samavasta if oral medicines are given it only increases the pathogenicity of the disease instead of curing it.

This overview suggests that fasting in diseased state as well as intermittent fasting have been proven efficacious and offer promising non pharmacological approaches for improving health at the population level with multiple public health benefit.

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