

Ethical aspects of *Langhana* - A review

Seminar Article

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Abstract

Ayurveda has a holistic concept of health. The *ayurvedic* approach to diagnose the illness is very systemic and scientific. The changing lifestyle of dietic and behavioral ways leads to the impairment of *jatharagni* which causes the formation of *aama*. This *aama* may lead to severe chronic non – communicable diseases. Ancient *acharyas* have explained that *langhana* is the first and best treatment for *aama*. *Langhana* is also included in six basic principles of treatment in *Ayurveda* that is *shat upakrama*. The ten different types of *langhana* should be administered according to the *dosha avastha*, *vyadhi avastha*, *rugna bala* and his *prakruti*. *Upavasa rupi langhana* or fasting that is complete voluntary abstinence from diet for particular period of time is practiced in both therapeutic and non-therapeutic manner. While doing fasting for religious or spiritual purpose in unhealthy manner, there may be serious ill effects about which a person should be made aware. In case of therapeutic fasting, patient should be convinced about the ideal ways of fasting, do's and don'ts during the fasting and healthy diet to be followed during and after breaking the fast. In both the cases, it is ethical responsibility of a physician to educate the patient about the scientific approach of concept of *langhana* to achieve its maximum benefits to maintain the normal health and body functioning. This should be done without hurting any kind of religious and emotional believes. This article explains in detail about the ayurvedic and modern concept of *langhana*, its religious impact as well as ethical and moral responsibilities of physician while applying it.

Key Words: *Ethical responsibility, fasting, informed consent, Langhana, religious impact.*

Introduction

Ayurveda the full-fledged system of medicine offers wisdom and practices for living a healthy life. (1) It encompasses modalities for health conservation, disease prevention and treatment with its unique concept of personalized treatment to eliminate the root cause of the disease. (1) *Ayurveda* also explains about the six basic principles of treatment called as *shat upakrama*. (2) These are *langhana*, *bruhana*, *rukshana*, *snehana*, *swedana* and *stambhana*. (2) *Acharya Vagbhata* have stated that *mandagni* is the basic reason for the development of any disease in the body. (3) Impaired *agni* leads to the formation of *guru*, *stabdha* and *pichchila aama* (4) which may lead to many chronic non-communicable diseases having serious consequences if left untreated. Ancient *acharyas* have explained the *chikitsa siddhant* according to which *langhana* is the first and best treatment for *aama*. (5) *Aacharya Charak* have explained the different types of

langhana which should be applied as per *rugna bala*, *dosha bala* and *vyadhi avastha*. (6)

While treating a patient with *laghu aahara rupi langhana* or keeping a patient on complete fasting or on restricted diet informed consent should be taken as *langhana* requires *uttama bala* and has to be done under strict supervision. The goal of informed consent is to provide the sufficient information about the treatment to a volunteer in a language which is easily understood by him or her, so that he or she can make the voluntary decision regarding 'to be' or 'not to be' the participant in the research study. (7) There are many religions in which fasting is advocated at different occasions or at different times of period. So, it is a moral responsibility of a physician not to hurt the religious believes as well as to treat the patient with his consent. This helps to maintain the doctor – patient rapo. This article describes about the fasting in both ayurvedic and modern point of view for the benefit of human health and also ethical and moral impact of fasting and the precautionary measures while applying it.

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Materials and methods

In this review article, concept of *langhana* has been compiled from ancient *ayurvedic samhitas*. Further, modern concept of fasting and its different popular ways are explained in detail. Fasting which is

practiced in routine life as per different religions is also stated here. Importance of informed consent, precautionary measures before applying the fasting and monitoring of the patient following the *langhana* is explained here. Along with this, the problems faced while applying the therapeutic fasting and measures applied in order to continue the fast without hurting any spiritual or emotional believes are also discussed here.

What is Langhana

Langhana is derived from the word ‘*laghu*’ meaning light. (8) The *upakrama* which creates *laghavata* that is lightness in the body is called as *langhana upakrama*. (9). The substances which carry out the functions of *langhana* have properties like *laghu* (light), *ushna* (hot), *tikshna* (fast penetrating), *vishada* (cleansing), *sukshma* (micro), *khara* (rough) and *sara* (movable). (10)

Types of Langhana

Acharya Charak have explained the ten different types of *langhana*. These are enlisted here as below –

Table no. 1

Types of Langhana	Conditions for the application
<i>Chatusprakara sanshuddhi</i>	<ul style="list-style-type: none"> • <i>Prabhuta shleshma-pitta-aasra-mala,</i> • <i>Sansrusta maruta</i> • <i>Bruhatasharira</i> • <i>Balina</i>
1. <i>Vamana</i> 2. <i>Virechana</i> 3. <i>Niruha basti</i> 4. <i>Nasya</i> 5. <i>Pachana</i>	<ul style="list-style-type: none"> • <i>Madhyama bala</i> • <i>Kapha-pitta samutthita vyadhi</i> • <i>Different vyadhis like chardi, atisara, hrudroga, visuchika, alasaka, jwara, vibandha, gaurava, udgara, rhulaasa, arochaka, etc.</i>
6. <i>Pipasa nigraha</i> 7. <i>Upavasa</i>	<ul style="list-style-type: none"> • Above stated vyadhis in <i>alpa bala rugna</i>
8. <i>Vyayama,</i> 9. <i>Aatapasevana</i> 10. <i>Marutasevana</i>	<ul style="list-style-type: none"> • Above stated vyadhis in <i>madhyama bala rugna</i>

Indications of Langhana (12)

Acharya Charak stated that *langhana* therapy should be administered to patients who are suffering from skin diseases, obstinate urinary disorders, to those who possess corpulent body together with unctuousness and fluidity. *Langhana* can even applied in *shishira rutu* to the patients suffering from *vata vikaras*.

Some indications where *upavasa rupi langhana* is adviced by ancient *samhitakaras* are enlisted here –

- *Santarpanjanita vyadhis* like *prameha, kushtha, shotha, etc.*(13)
- *Atinidra chikitsa* (14)
- *Nava jwara chikitsa* (15)
- *Raktapitta chikitsa* by manifesting the track through which the disease is caused, association of *doshas* (mostly *kapha-pitta*) and causative factors (*snigdha* and *ushna hetu*) (16)
- *Kaphaja gulma chikitsa* (17)
- *Chikitsa of aamavastha in shotha* (18)
- *Grahani chikitsa* (19)

Samyak Langhana Lakshana (20)

Acharya Charak have summarized in detail about the signs and symptoms of proper administration of *langhana* therapy. These are –

- Proper excretion of flatus, urine and feces
- Lightness of body
- Feeling of purity in heart, eructation, throat and mouth
- Disappearance of drowsiness and exertion
- Appearance of sweat
- Appearance of taste for food
- Excessive hunger and thirst
- Contentment

Adverse effects of excessive Langhana (21)

Excessive *langhana* can affect the physical as well as mental health of a patient. The signs and symptoms of excessive administration of *langhana* therapy explained by ancient *aacharyas* are enlisted below. By recognizing them, patient should be advised to break the *langhana*. These are -

1. Cracking of the skin
2. Malaise
3. Cough
4. Dryness of mouth
5. Loss of appetite
6. Anorexia
7. Thirst
8. Impairment of the power of hearing and sight
9. Loss of memory
10. Emaciation of body
11. Power of digestion and strength

Concept of fasting as per Modern science

Definition (22)

Fasting is a complete voluntary abstinence from taking any kind of food for a definite period of time.

Different types of fasting (23)

1. Water fasting – This involves drinking only particular amount of water for a particular period of time.

2. Juice fasting – Drinking of only vegetable or fruit juice for a certain period is allowed.

3. Intermittent fasting – Intake of food is partially or completely restricted for few hours or few days at a time. On other days, a normal diet can be consumed.

4. Partial fasting – Particular foods materials or drinks are eliminated from the diet for a particular period.

5. Calorie restriction – Diet according to daily calorie requirement is allowed.

Six ways to do intermittent fasting (23)

This has been very popular in recent years due to benefits like weight loss, improvement in metabolic health and digestive capacity and even extend life span.

These are explained as below

1. 16/8 method – Fast for 16 hours each day

- This involves fasting every day for 14-16 hours and a person can consume healthy diet in eating window of 8-10 hours.
- When a person finishes his dinner at 8pm and then don't eat anything until 12noon the next day, then he follows the fast for 16 hours.
- Intake of water, coffee and other non-caloric beverages is allowed during the fast as this helps to reduce the hunger levels.

2. 5:2 diet – Fast for 2 days per week

- Normal healthy diet is consumed on 5 days of the week while on remaining two days, restricted calories as per need are consumed.

3. Eat – stop – eat – Do 24 hours fast once or twice a week

- By fasting after completing one meal on a day to the meal at the same time on next day, can be considered as 24 hours fast.
- This can be advocated as fast from breakfast to breakfast or fast from lunch to lunch or even fast from dinner to dinner.
- Only water, coffee and other non-caloric beverages are allowed during the fast and other solid food is not permissible.

4. Alternate day fasting

- Fast is done on every other day that means one day of fast and next day of normal healthy diet and the cycle continues.
- A complete fast for every other day is difficult and not suitable for beginners and hence not advised to them.

5. The worrier diet

- Whole day, fast is done and, in the night, heavy meal is consumed.

6. Spontaneous meal skipping

- When a person doesn't feel hunger or he is busy in some work or unable to prepare the meal and eat it then it is advised to skip that particular meal.

Religious impact on fasting (22)

While religious fasts are partaken primarily for spiritual purpose, they also have the potential to affect one's physical health.

Ramadan fasting

The common Ramadan fasting is to consume one large meal after sunset and one lighter meal before dawn. Muslims consume a greater variety of foods during Ramadan compared with the rest of the year. Also, sugary foods and drinks are consumed more frequently during Ramadan.

Six religions other than Islam that follow fasting (24)

Ramadan is a month famous for fasting all over the world. Muslim as well as non-Muslim people follow Ramadan fasting. There are some other religions also in which fasting is done at specific days or specific time and after completing the fast, particular type of diet is consumed.

1. Jews – They follow fast on the day of Atonement. They also do fast on the day on which the destruction of the Jewish temple took place which is known as Tish B'Av.

2. Buddhists – Buddhists do fast mostly on full moon days.

3. Catholics – They fast on Ash Wednesday and Good Friday. They also avoid meat on all Fridays in Lent.

4. Hindus – They fast on new moon days and during festivals such as Shivaratri and different types of Puja.

5. Mormons – They fast on the first Sunday of each month.

Fasting for non-religious purpose (25)

Some cultures even fast for non-religious reasons. In the month of September, the people from Geneva (Switzerland) follow fast which is public holiday also. Fasting is also done as a part of repentance after calamities such as wars, epidemics or the plague.

Hunger strike (26)

It is a method of non-violent resistance or pressure. In this, a person fast as an act of political protest or to provoke the feelings of guilt in others with the aim to achieve a particular goal such as policy

change. Most of the hunger strikes allow liquid diet only.

Fasting for health and longevity – A Noble prize-winning research on cell aging – 2016 (27)

Dr. Yoshinori Ohsumi was awarded a Noble Prize for his discoveries of the underlying mechanisms of a physiological process called 'Autophagy'.

It is a process of utilizing and recycling unnecessary or dysfunctional cellular components which are accumulate in cells. Thus, it removes the defective proteins and damaged cells and intracellular organelles from there and maintain them in a good condition.

If body fails to engage in autophagy, damaged cells and structures can accumulate dangerously.

Benefits – The research study is important because it helps in following conditions –

1. Cellular response to starvation
2. Post infectious condition
3. Embryo development and cell differentiation
4. Counteracting the negative consequences of ageing
5. Treatment of inflammatory disorders

Important measure before applying Langhana or fasting

Medical Ethics (28)

It is the subject concerned with moral principles for the members of medical profession in their dealings with each other, their patients and the state. The aim is to honor and maintain the noble traditions of the medical profession.

For example

1. A medical practitioner should not take charge of a patient who is under the care of another practitioner.
2. He should not refuse to give medical service on religious grounds.
3. He must remember his duty to the state in relation to notifiable diseases and to the public to give emergency care on humanitarian grounds.

The following precautionary measures should be taken before applying *langhana* therapy in order to avoid social as well as physical and mental ill effects.

1. Informed consent (7)

As no individual has right to infract the fundamental rights of another person for the sake of fulfilling his own purpose, so an important tool called 'informed consent' came into existence. Conventionally, informed consent is thought to be in terms of the documents signed and dated by participants setting forth the purpose, benefits, risks and other study information necessary to allow the participants to make an informed and voluntary decision to participate in the treatment

protocol. *Langhana* requires *uttama bala* and *uttama satva* of patient and there may be religious and spiritual fasting habits that may interfere or overlap with the required *langhana* therapy. Hence the informed consent should be taken before applying the *langhana*.

2. In case of fasting for non-therapeutic purpose

If a person does *langhana* for spiritual purpose and there are any kind of unwanted symptoms then it is a responsibility of a physician to interact with that person and council him/her about the unlawful and unhealthy measures of unnecessary *langhana*. Physician should convince him/her to break the *langhana* by proper way without hurting his emotional believes.

For example – If a person is fasting for 8-10 hours and if he/she feels giddiness or tremors then the situation demands him/her to break the fast. At this time, physician plays an important role to convince him/her to break the fast either by any kind of sweet, fruit juice or some light diet and make him/her aware about the after breaks of unhealthy *langhana*. Physician should guide him/her about the proper and healthy methods of *langhana* which is suitable for his/her health and body constitution without interfering his/her religious believes.

3. In case of fasting for therapeutic purpose

If a person is suffering from a disease in which *langhana* or fasting is necessary or *langhana* is required to achieve the normal health and body functioning, then it is the moral responsibility of a physician to communicate with the patient and motivate him/her about the type of *langhana* he/she should follow, about the do's and dont's he/she should follow during *langhana* and scientific method by using which he/she should break the *langhana*.

For example – If a person is suffering from *santarpanajanita vyadhi* then the first line of treatment is to be *langhana* and after doing proper and healthy *langhana*, the following treatment measures will work more effectively. So, the physician should motivate him/her about the *langhana* either by *anashana*, *ekakalabhojana* or *laghu-aahara rupi langhana* according to his/her *prakruti*, *bala*, *doshavastha* and *vyadhi avastha*. The physician should explain him/her in detail about the measures to be adopted, certain precautions to be taken, things to be avoided during *langhana* and encourage him/her about the ideal method of breaking the *langhana*.

Precautionary measure while applying fasting (23)

Though there are many benefits of fasting including improving the digestive capacity and longevity of life, there may be some adverse effects if it is done in wrong and non-scientific manner. Hence following things should be keep in mind while fasting –

1. Short fasting periods– By adapting 16:8 fasting, 5:2 fast, warrior diet and other types of fasting, the side effects of longer fasting can be avoided.

2. Maintenance of hydration –Mild dehydration can cause fatigue, dry mouth, thirst, etc. So, it is important to drink water or juices at the time of fasting.

3. Keep the person busy – Breaking of fast can be avoided by keeping the person busy. This can be achieved with the help of activities that distract the person from hunger without using too much energy. This include walking, meditation, mild yoga, gentle stretching and housework also. Any activity that is calming and not too strenuous can help to keep the mind engaged. Reading of book or listening to a podcast can also be beneficial.

4. Avoid heavy meal after breaking the fast - Breaking the fast by consuming large heavy meal may cause a feeling of bloating and tiredness. So, heavy meal should be avoided and instead light diet should be consumed.

5. Breaking of fast if there is feeling of being unwell – If a person feels unwell or if there are symptoms like fatigue, giddiness then, he should be advised to break the fast and take a light diet.

Monitoring of patient following the *Langhana*

The following signs and symptoms should be observed by the physician in order to avoid the adverse effects caused due to excessive *langhana*.

1. Shrivelled and dry skin
2. Lethargy
3. Dizziness
4. Delirium
5. Dry mouth
6. Low blood pressure
7. Increased heart rate
8. Level of consciousness

Laboratory investigations to monitor the *langhana* –

With the help of following laboratory investigations along with the monitoring of patient for above stated signs and symptoms, the adverse effects of excessive *langhana* can be avoided.

A. Blood tests – Blood sample should be used to check for a number of factors. These are –

1. Blood sugar level – This is very convenient, easily available and cheap method to assess the physical status of patient following the *langhana*.
2. Serum potassium level – Determination of potassium in serum is most important in diagnosis of adrenal or renal insufficiency and in the post acidotic phase after dehydration.

3. Serum sodium level - Osmolality of body fluid is estimated by measuring serum sodium level. Abnormal osmolality indicates a serious condition as it is normally maintained at the expense of fluid volume by the kidney.

4. pH and CO₂ content – Acid-base disturbances, most commonly metabolic acidosis is detected by measuring pH and CO₂ content.

5. Blood urea nitrogen - This helps to detect the reduced glomerular filtration rate.

6. Ketone bodies – This should also be investigated as increase in ketone bodies indicates serious condition.

B. Urine analysis

This should be done to check the color (dark yellow – in case of dehydration), appearance, concentration and content of urine.

By using these measures, physician should convince the patient to break the *langhana* and manage the symptoms with the help of IV fluids or any other drinks and emergency medicines.

Discussion

In our society, *upavasa rupi langhana* or fasting is practiced in different ways for both therapeutic and non-therapeutic purpose. People have many mis concepts regarding the *langhana*. Many times, the ill effects of unnecessary *langhana* can hamper the physical as well as mental status of the patient. People still believe to continue the fast even facing some ill-effects like giddiness, lethargy, etc. In such conditions, it becomes moral responsibility of a physician in order to generate the awareness about the improper and wrong ways of *langhana* and educate them the ideal methodology of *langhana* to achieve its maximum benefits.

Personal experience of problems faced while applying *Laghu Aahara rupi langhana* to the patient

1. When a patient comes to the hospital, he/she will be having an idea in his/her mind that he/she will be receiving treatment like in modern perspective as different kinds of tablets, syrups, capsules, injections, etc. or in *ayurvedic* perspective as variety of *churnas*, *kashyas*, *guti-vati*, *avaleha*, etc. But *langhana* is also a therapeutic measure with which he/she is not familiar about. So, it became quite difficult to convince the patient that *langhana* is a type of therapy specially advised to treat him/her. In such a condition, patient was made familiarized with ideology of *langhana*, its types, different methods and diet modalities to be adopted, its advantages and after breaks.
2. Patient have a mind set that he/she is ill and weak and he/she need a proper balanced diet and suitable medicines to get cure whereas putting him/her on fasting is going to make him/her more ill and weak.

In this situation we assured him/her about the ideology of *langhana* therapy and its advantages.

3. A 55 years old female patient came to our institute who was suffering from a *santarpanjanita vyadhi*. The entire physical and systemic examination of the patient was done and it was found that *langhana* was the utmost requirement for her as a treatment. It was a festive season during which she was doing *vrata* in unhealthy manner. She was practicing this since last many decades which also played as an etiology for the chronicity of disease. We counsel her and her family members and made them aware about the ill effects of unhealthy *langhana*. We told her to continue the *langhana* by correcting the diet which she used during her *vrata*. We advised her *laghu aahara rupi langhana* by using *saptamushtika yusha* at the time of *kshudhaprachiti*. She agreed for the treatment and as her *bala* and *satva* was good, we got excellent results in her case and the patient was satisfied with the treatment with the remarkable results.
4. When a patient is under non – therapeutic fasting though he/she is facing its ill effects, he/she refuses to put on hold the fast because of his/her strong and superstitious belief that he/she may have to face its severe consequences by almighty. So, it is the duty of a physician to make him/her aware about his/her unlawful and unethical way of fasting and convince him/her to hold it and educate him/her the proper method of fasting.

Conclusion

Fasting is never non-beneficial but the problem arising from the non-therapeutic fasting is unhealthy diet during and after breaking the fast. So, if the healthy diet is adopted during the fasting which is easy for digestion then this non-therapeutic fasting can also be healthy. But most of the patient become reluctant for *langhana* because of unfamiliar methodology and unwillingness for investing the time. In such circumstances, it is ethical duty of physician –

1. To convince the patient who is in need of *langhana* for his/her health.
2. To prevent the patient from unhealthy non-therapeutic fasting and make him/her aware about the ill-effects of improper and unhealthy ways of fasting irrespective of different religions.
3. Educate him/her the different ideal ways of fasting, do's and don'ts during the fasting and healthy diet to be followed during and after breaking the fast without hurting his/her religious believes.

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