ROLE OF AHARAPARINAMKARA BHAVA IN DIGESTION – AN APPLIED

ABSTRACT
Different factors affecting digestion are described in Ayurveda. One of them is principle factor and others are supporting ones. This process is known as aharaparinam that means “ultimate fate of eaten food, facilitation of health and different problems of health resembles with this. If food is as per requisites of body entities “ultimate fate of food” facilitates health. Otherwise eaten food could be problematic to health. This law is stated by charak Samhita in sharirsthan 6th chapter, where parinamana biotransformation process is explained. Ingested food is biotransformed into body entities. If food bears qualities facilitating body entities, it is able to nourish and replenish these body entities. If food bears qualities opposite to body, such food keeps these body entities ill nourished. So, factors which make food to undergo “ultimate fate” are called “aharaparinamakara bhava.” These are ushma, vayu, kleda, Sneha, kala and samayoga. Everyone of them are having its own specific action.

Keywords: Aharaparinamakar bhava, parinaman, biotransformation.

INTRODUCTION: According to biological concerns humans are known as consumers. It means humans have to ingest all nutrients, all variety of food proximal principles for example vitamins, water etc. for their survival. For body development, for replenishment of daily wear and tear of body entities, for energy storage, for disease resistance, human have to eat. Food also included as Sharirvrudhikar bhava. Food is essential for stability, body maintenance, span of life of human being. So all these features quality food is capable of offering nourishment to used body entities, luster, strength, good colour of skin, etc. All these things are possible only if food digest not otherwise. For proper digestive function different affecting factors are described in Ayurveda. One of them is principle factor and others are supporting ones. Aharparinamkar is ultimate fate of eaten food in living body. It is the biotransformation process. Charak Samhita offers reference in Sharirsthan 6 that there are 6 factors which carry the biotransformation i.e. are helpful to Parinamana. Those are ushma, vayu, kleda, Sneha, kala and samyog. Those are directly concern with process of digestion. If influence of those factors occurs in increased or decreased manner it leads to pathological condition. So it’s necessary to review how those factors carry their role.

AIM
To study the physiological aspect of Aharparinamkar bhava.

OBJECTIVES
To study the fundamental concept of Aharparinamkar bhava.

MATERIAL AND METHODS
For this study Ayurvedic and modern literature concern with this topic from classical text of Ayurveda and modern sciences.

REVIEW
In Charak Samhita Sharirsthan 6 the Aharparinamkar bhava are explained in the form of Parinaman law. Parinaman is the process of bio-transformation. Ingested food is bio-transformed into body entities. If food bears qualities facilitating body entities, it is able to nourish and replenish these body entities. If food bears qualities opposite to body entities, such food keeps these body entities ill nourished; or sometimes such food is capable of killing these body entities. Factors which make food to undergo ‘ultimate fate’ are called ‘Aharparinamkarbhava’. Factors are responsible for bio-transformation of food:

1. Ushma
2. Vayu
3. Kleda
4. Sneha
5. Kala

Role of Ushma is to digest the food.

Role of Vayu is to stimulate or to move food particles from one part to another part.

Role of Kleda is to disintegrate coarse food into finer particle.

Role of Sneha is to give softness to the food.

Role of Kala is indicative time required in different parts of Mahastrotas in digestion process.

Sixth is Samyoga that means healthy combination of food items. If all 6 factors are in co-ordination form, this give rise to healthy status of dhatu.

The person who drink water before the meal becomes lean i.e. KRUSH and the person who drink water after the meal becomes obese i.e. STHULA.

Prana, Samana, and Apana vayu all three subtype of Vayu are helpful by their prescribed function in digestion. Prana vayu is helpful in ingestion of food. Samana vayu is in vicinity of Agni. It induces and strengthens digestive fire. In GI tract it hold foods & digest it, seperates it into absorbable and non absorbable portion and send it further in lower part of intestine.

Apana is controller of all excretion through pelvic organ. It is responsible for excretion of urine plus faeces. In this way Vayu is having its own importance. As a Aharparinamkar bhava in digestion process.

Kleda – according to Ayurveda bhodhak kapha and kledaka kapha having its own importance in digestion, mixing of bodhak kapha in food is indirect responsible for digestion process.

Sneha – due to the effect of kleda the big food particles are disintegrated into small particles but when Sneha in the form of oil or ghee is mixed in food particles. The nature of food become soft, also Sneha strengthens and build our body.

Kala – according to Ayurveda ashtang sangraha described the 4 Yam period required for the digestion. for tikshagni person the time required is 2 Yam. The time required for jeerna ahar lakshna is also involved in kala factor. We can also consider the dosha vrudhhi kala for digestion purpose because pitta vrudhhi occurs in mid day where ingested food can be easily digested.

Samyoga - that means healthy combination of food item. If all 6 factors are in co-ordination form, this give rise to healthy status of Dhatu. With these six factors, there are eight factors i.e. included in Ashtavidh aharavidhi-vishesha ayatana are also responsible for healthy status of Dhatu.
DISCUSSION: Factors affecting digestion are described in Ayurveda. One of them is principle factor and others are supporting ones. ‘Aharparinama’ is ultimate of eaten food in living body. If eaten food is as per requisites of body entities, ‘ultimate fate of food’ facilities health. Otherwise eaten food could be problematic to health. This law is stated by Charak Samhita as Parinam. Parinaman is bio-transformation. When food constituents are suitable for bio-conversion ‘and can nourish body constituents, they are assimilated. On the contrary when food constituent are suitable for bio-conversion yet are not able to nourish body constituents, they are not assimilated.

Ingested food is bio transformed into body entities. If food bears qualities facilitating body entities, it is able to nourish and replenish these body entities. If food bears qualities opposite to body entities, such food keeps these body entities ill nourished or sometimes such food is capable of killing these body entities. Factors which make food to undergo ‘ultimate fate’ are called ‘Aharparinamkarbhava’.

Following factors are responsible for bio-transformation of food:
1. Ushma
2. Vayu
3. Kleda
4. Sneha
5. Kala

First amongst these factors, ‘Usma’ is parallel to fire in world. Just as fire boils rice from raw grains, this ‘Usma’ digests ingested boiled rice to absorbable products. This is action of ‘Agni’, or ‘Pachakagni’, as far as digestive system is concerned.6

Similar thought is read in modern physiology of digestion. Maintenance of temperature in digestive tract is extremely important for digestion. Digestive enzymes need typical temperature and appropriate Ph in GI tract, without which digestion becomes impossible. Hence this factor is directly responsible for digestion. For example gastric juice Ph must be 0.9 to 1.2. and the body lies to keep its core temperature steady at above 100 degree Farenhite, which is when the best digestion occurs.

Second amongst these factors, ‘Vayu’ or movements and stimulation of various kinds is supplementary indigestion. For example opening & closing of mouth, rotational movements of jaw, protrusion and retraction of jaw, deglutition process followed by oesophageal movements. Movements of stomach includes type 1, 2 & 3 hunger contractions, receptive relaxation, peristalsis. Movements of small intestine includes mixing movements of two types segmental movements & pendular movements, propulsive movements of two types peristaltic movements & peristaltic rush, peristalsis in fasting, Movements of villi.

Movements of large intestine includes mixing movements- segmentation & contractions & Propulsive movements- mass peristalsis. Last is defecation process.

Other factors like ‘Vayu’ are helpful in biochemical reactions of digestion of food. Vayu drags food to proper place where Agni actually exists. Not only this but ‘Samana Vayu’ also adds to stimulate Agni. This again is another help to digestion of food.4

Apana is controller of all excretion through pelvic organ. It is responsible for excretion of urine plus faeces. In this way Vayu is having its own importance. As a
Aharparinamkar bhava in digestion process. Supplementary functions of ‘Vayu’ are – to induce necessary movements in GI tract, and to induce secretion of enzymes in GI tract with the help of vagus nerve action.

Third amongst these factors, ‘Kleda’, is again a necessary supplementary factor as it helps in disintegrating coarse food material into finer particles. Kleda is moisture. In digestion this moisture is provided by ‘kledaka Kapha’ in stomach or ‘Amasaya’. Kledaka kapha soaks all food material whether taken with fluid or dry and makes a fine paste of chewed food in stomach. saliva in oral cavity helps the food to churn with the help of teeth & turn the food to bolus form. In stomach mucus helps for lubrication & protects the gastric mucosa from irritation. Intestinal mucus protects the epithelium from bacteria by promoting their clearance & separating them from the epithelial cells, their by inhibiting inflammation & infection.

Similar thought is read in modern physiology of digestion. Food coming from stomach is already in fine state. This is due to churning movements of stomach as well as mucus in stomach. Duodenal sphincture does not allow coarse food to enter.

Fourth amongst these factors, ‘Sneha’ is in context to softness brought to food. The oil, ghee contained food help the digestion to give softness to the food.

Similar thought is read in modern physiology. Mucus in GI tract functions in same fashion.

Fifth amongst these factors, ‘Kala’ is considered in this context as time required for digestion. However efficient enzymes are however effective movements are, food must get certain period to get digested. According to Ayurveda ashtanga sangraha described the 4 Yam period required for the digestion. for Tikshgni person the time required is 2 Yam. The time required for Jeerna ahar lakshna is also involved in kala factor. We can also consider the Dosha vrudhhi kala for digestion purpose because Pitta vrudhhi occurs in mid day where ingested food can be easily digested.

According to modern aspect the specific timing required for digestion process in different areas of alimentary canal can be considered as kala. For example propulsion of food by pharynx last for only few second, conduction of food rapidly from pharynx to stomach in 8 to 10 seconds, when entrance of food from oesophagus to upper portion of stomach and average time required for emptying of stomach approximately 4 to 5 hrs, move towards the antrum once every 15 to 20 seconds, 3-5 hrs requires for passage of chyme from pylorus to ileo-caecal valve. It can take 2.5 to 3 hrs to empty half of your small intestine. The time required for propulsion in ceacum and in ascending colon is an about 8-15 hrs to move chyme from the ileo-ceacal valve.

In general it can take 24-44 hrs from the time you eat food to the time it leaves your body as a waste.

Meaning of word ‘Paryapt’ is till digestion. It is true that ‘USHMA’ is necessary factor and inevitable one for digestion. Yet only appropriate quantity of ‘Ushma’ is not enough for digestion of food. Allotment of necessary time is required equally.

This spells out importance of ‘time factor’ in process of digestion.

Similar thought is read in modern physiology of digestion. Retention of food for the purpose of admixture with enzymes and allied appropriate movements of GI tract.
tract are described in details in modern physiology.

Sixth amongst these factors, Samyoga - that means healthy combination of food item. If all 6 factors are in co-ordination form, this give rise to healthy status of dhatu. With these sixs factors, there are eight factors i.e. included in Ashtavidh aharavidhi-vishesha ayatana are also responsible for healthy status of dhatu.

CONCLUSION: If all 6 factors are in coordination form, this gives rise to healthy status of Dhatu. If any one of these factors is in increased or decreased manner different gastrointestinal disorders can occur.

REFERENCES

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