Concept of Accha Pitta in Ayurveda - A Literature Review

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Abstract- Ayurved describes various concepts regarding health and life. As per Ayurved, Pitta is responsible for Pachana Karma (Digestion) in the body. Types and functions of Pitta are explained in various granthas of Ayurved. In Charak Samhita in Grahani Adhyaya, a special type of ‘Pitta’ reference is given that is ‘Accha Pitta’. Accha Pitta secreted during Dwitiya Awasthapak. To understand the concept of Accha Pitta it is required to refer the descriptions of other Acharyas of Ayurved. This concept requires considering its modern aspect also. The article reviews the understanding of the concept of Accha Pitta as per Ayurved and Modern science.

Key Words: Accha Pitta, Ayurveda, Succus Entericus, Bile Juice & Pancreatic Juice.

INTRODUCTION:
Ayurved is science of life; it deals with prevention of diseases and treatment if any disorder occurs. Ayurved chiefly focuses on equilibrium of Dosha which can be achieved by restoring Agni in its normal limits. According to Ayurved Agni resides in Pitta Dosha. So, for maintenance of health, equilibrium of Dosha and Samagin are important factors. Acharya Charaka in his Chikitsa sthana describes the importance of Agni with respect to Ayu, Varna, Bala, Swasthya, Utsaha, Upachaya, Prabha. Further Acharya Charaka states that whatever ahara is being ingested, depending on the same dhatu, oja, bala, varna etc. are generated.

The process of making the food substances compatible to our body is termed as Pachana in Ayurved. This Paka or Pachana is of two types- Sthoola Pachana & Sukshma Pachana. Conversion of complex food substances into simple ones by action of Jatharagni in Annava Rasa (particularly in Grahal) is known as Sthoola Pachana. Ahara Rasa is formed at the end of Sthoola Pachana. In Sukshma Pachana from Ahara Rasa, dhatus are formed after the action of Dhatwagni in their respective Srotas.

This Sthoola Pachana is carried out in three stages and these stages are known as Awasthapak.

Awasthapak are also known as stages of digestion of food. Awasthapak is of three types viz. Madhura Awasthapak, Amla Awasthapak and Katu Awasthapak. While describing Amla Awasthapak (Dwitiya Awasthapak), Acharya Charak mentioned the term Accha Pitta. Commentaries on Charak Samhita by Chakrapanidatta explain the term Accha as Aghanam. As per Amarkosha Accha means Prasanna i.e. clear. The explanations given by Ayurvedic authors for the term Accha Pitta clears that it is a special type of pitta secreted at the second stage of Awasthapak which is clear and Transperant and specifically secreted in the lower part of the Amashaya. To have the more understanding regarding the term Accha Pitta, study needs Ayurvedic and Modern aspects of the digestion. The article reviews the understanding of the concept of Accha Pitta as per Ayurved and Modern science.

REFERENCES:
[1,2,4]

II. AIMS AND OBJECTIVES:
To understand the concept of Accha Pitta.
To review the literature of concept of Accha Pitta.
To consider concept of Accha Pitta with respect to digestive juices.

III. MATERIALS AND METHODS:
Available textbooks, handbooks, e-books, search engines like Google, original research articles from various high impacting international peer reviewed journals etc. were the sources utilized for understanding the concepts under study.

IV. LITERATURE REVIEW:
Ayurved is ancient science. As per Ayurved, all dravyas in universe are panchbhautik i.e. made from Panchmahabhuta. Likewise Aharadravyas also panchbhautik. For Sharir Poshana, ahara is most important. Ahara in its original form is not useful for body. After ahararpananama, it converts into Sharirisamya ansha. This ahararpananama done by Agni. According to Ayurved Agni resides in Pitta Dosha. The process of making the food substances compatible to our body is termed as Pachana in Ayurved. This Paka or Pachana is of two types- Sthoola Pachana & Sukshma Pachana. Conversion of complex food substances into Simple ones by action of Jatharagni in Annava Srotas (particularly in Grahan) is known as Sthoola Pachana. Ahara Rasa is formed at the end of Sthoola Pachana.

This Sthoola Pachana is carried out in three stages and these stages are known as Awasthapak. Awasthapak are also known as stages of digestion of food. Awasthapak is of three types viz. Madhura Awasthapak, Amla Awasthapak and Katu Awasthapak.

1. Madhura Awasthapak:
Madhura Awasthapak is first stage of Ahara Pachana. Site of Madhura Awasthapak is Amashaya. In this stage, there is vighatana (digestion) of Privthi and Jala Mahabhutapradhan Ahara. So, there is secretion of Kapha Dosha. Anga-gaurav, Alasya, Nidra, Tantra are the characteristics of Madhura Awasthapak.

2. Amla Awasthapak:
Amla Awasthapaka is second stage of Ahara Pachana. Site of Amla Awasthapak is Grahani. In this stage, there is vighatana (digestion) of Agni Mahabhutapradhan Ahara. So, there is secretion of Pitta Dosha. Daha, Trishna are the characteristics of Amla Awasthapak.

According to Acahrya Charaka- Accha Pitta secretion start in Dvitiya Awasthapak i.e. in Amla Awasthapak. When Vidagdha and Amlibhutaahara after completion of Madhura Awasthapak comes into Grahani, there is secretion of Accha pitta started. Accha Pitta characteristics given in Chakrapanidatta tika. Accha pitta is Aghanam, Tanu, Drava and Sara in nature.

3. Katu Awasthapak:
Katu Awasthapak is third stage of Ahara Pachana. Site of Katu Awasthapaka is Pakwashaya. In this stage, there is vighatana (digestion) of Vayu and Akash Mahabhutapradhan Ahara. So, there is formation of Vata Dosha. Sharir laghuta, Utsaha, Kshudha prachiti are the characteristics of Katu Awasthapak.

Accha Pitta is compared with Digestive juices secreted in Small Intestine. Accha Pitta may be considered as Succus Entericus, Bile Juice or Pancreatic Juice. [1,2,3,6]

Succus Entericus:
Characteristics: Volume: 1 800 ml /day, Reaction: Alkaline with pH of 8.3, Specific Gravity: 1.010 to 1.018
Composition: Water 99.5% & Solids 0.5%
Organic Substances:
1. Enzymes-
Proteolytic Enzymes- Peptidases, Amino Peptidase, Dipeptidase, Tripeptidase
Amylolytic Enzymes- Sucrase, Maltase, Lactase, Dextrinase, Trehalase
Lypolytic Enzymes- Lipase
Enterokinase
2. Other organic substances- Mucus, Intrinsic factor, Defensins
Inorganic Substances: Sodium, Calcium, Potassium, Bicarbonate, Chloride, Phosphate, Sulphate

Mechanism of secretion:
1. Nervous Mechanism:
• Stimulation of parasympathetic nerves increases secretion of succus entericus.
• Stimulation of sympathetic nerves decreases secretion of succus entericus.
• Local nerve reflexes play important role in increasing secretion of succus entericus. When Acid chyme enters the small intestine, the mucosa of small intestine stimulated by acid irritation. It causes stimulation of local nerve plexus which causes stimulation of intestinal glands. So, secretion of succus entericus increases.
2. Harmonal Mechanism:
When Acid chyme enters the duodenum, there is secretion of harmones. Enterocrinin, Secretin and Cholecystikinin. These harmones reaches stimulate secretion of Succusentericus by stimulating intestinal glands.

Pancreatic Juice:
Characteristics: Volume: 500 to 800 ml /day, Reaction: Highly alkaline with pH of 8 to 8.3
Specific Gravity: 1.010 to 1.018
Composition:
Organic Substances:
1. Enzymes –
Proteolytic Enzymes- Trypsin, Chymotrypsin, Carboxypeptidases, Nuclease, Elastase, Collagenase
Amylolytic Enzymes- Pancreatic amylase
Lypolytic Enzymes- Pancreatic Lipase, Cholesterol ester hydrolase, Phospholipase A, Phospholipase B, Collipase. Bille salt activated lipase
2. Other organic substances –Albumin, Globulin
Inorganic Substances: Sodium, Calcium, Potassium, Bicarbonate, Chloride, Phosphate, Sulphate

Mechanism of secretion:
Secretion of Pancreatic Juice regulated by Nervous and Hormonal Mechanism. The Pancreatic juice secretion occurs in three phases:
1. Cephalic Phase :
Unconditioned Reflex- Food in the oral cavity stimulates secretion of Pancreatic juice.
Conditioned Reflex-Sight, smell and thought of food also stimulate secretion of Pancreatic juice. During conditioned and unconditioned reflex, the impulses reach to pancreas through vagus nerve.
2. Gastric Phase :
When food enters the stomach, there is secretion of hormone gastrin. This hormone reaches to Pancreas through blood circulation and stimulate secretion of Pancreatic juice.

3. **Intestinal Phase:**
When Acid chyme enters the duodenum, there is secretion of harmones Secretin by S cells of mucus membrane in duodenum and Cholecystokinin by I cells of duodenum and jejunum mucosa. These harmones reaches to Pancreas through blood circulation and stimulate secretion of Pancreatic juice.

**Bile:**

**Characteristics:** Volume: 800 to 1200ml/day, Reaction: Alkaline with pH of 8 to 8.6,
Specific Gravity: 1.010 to 1.011, Colour: Green yellow or green

**Composition:** Water 97.6% & Solids 2.4%
Organic Substances: Bile salts, Bile pigments, Cholesterol, Fatty acids, Lecithin, Mucin
Inorganic Substances: Sodium, Calcium, Potassium, Bicarbonate, Chloride

**Mechanism of Secretion:**
Secretion of Bile Juice is continuous process, but its secretion increases 3 hours after the meals. The Bile secretion from Liver and its release from Gall bladder is influenced by some harmones and chemical factors.

1. **Choleretics:**
   - Substances which increase the secretion of bile juice are known as Choleretics. Cholecystokinin, Secretin, Acetylcholine, bile salts, acid chyme are effective choleretic agents. When Acid chyme enters the duodenum, there is secretion of harmones Secretin by S cells of mucus membrane in duodenum and Cholecystokinin by I cells of duodenum and jejunum mucosa. These harmones increases secretion of Bile juice.

2. **Chologogues:**
   - Substances which increase release of bile juice from gallbladder to the intestine are known as chologogues. Cholecystokinin causes contraction of gall bladder and release of bile juice.

3. **Hydrocholeretic agents:**
   - The substances which cause secretion of bile from liver with large amount of water and fewer amounts of solids are known as hydrocholeretic agents. Hydrochloric acid is a hydrocholeretic agent.[4,5]

**V. DISCUSSION AND CONCLUSION:**

- According to Acarya Charaka- Accha Pitta secretion start in DvitiyaAwasthapak i.e. in Amaawasthapaka. When Vidagdha and Amlibhutahara after completion of Madhura awasthapak come into Grahani, there is secretion of Accha pitta started.
- As mechanism of digestive juices secretion food in oral cavity stimulate taste buds and causes secretion of digestive juices by vagus nerve stimulation in small amount.
- When Acid chyme enters the small intestine, the mucosa of small intestine stimulated by acid irritation. It causes stimulation of local nerve plexus which causes stimulation of intestinal glands. So, secretion of succus entericus increases.
- When Acid chyme enters the duodenum, there is secretion of harmones Secretin by S cells of mucus membrane in duodenum and Cholecystokinin by I cells of duodenum and jejunum mucosa causes secretion of digestive juices in small intestine.
- Accha Pitta is compared with Digestive juices secreted in Small Intestine. Accha Pitta may be considered as Succus Entericus, Bile Juice or Pancreatic Juice.
- Accha Pitta characteristics given in Chakrapanidatta tika. Accha pitta is Aghanam, Tanu, Drava and Sara in nature. As per characteristics of Accha pitta all Succus Entericus, Bile Juice and Pancreatic Juice are drava and tanu in nature. Whereas bile facilitates peristaltic movements which proves its Sara nature.
- Accha Pitta considered as Bile, But Accha means Nirmala (without waste products) and bile contains waste products like bilirubin.
- Hence, to compare Accha Pitta with digestive juices, all the characteristics of these juices should be studied.

**REFERENCES:**