“Anatomical review of role of mental health in Annavaha Srotas Vikruti.”

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ABSTRACT

The good health is defined not only on basis of physical well being but rather also on mental well being. As told in Ayurveda texts- “Prasanna Atmendriya Manah Swasth Ityabhidheeyate”. In era of globalization, the fast & modernized lifestyle has taken toll on one’s health. Now a day, majority of population is suffering from digestive disorders such as anorexia, reflux , bloating, stomach pain, constipation, and acidity. These digestive disorders are mainly due to bad dietary habits like junk foods, lack of balanced diet etc and also due lack of proper sleep, stress etc. Stress shows both long term and short term effect on gut functions like gastric secretions, gut motility, mucosal permeability etc. Our Acharas were well aware about this factor for digestive disorders, as they included Shoka, Bhaya, Krodha etc. as Nidana (cause) of digestive disorders. These various Nidana of digestive disorders causes Agnidushti which is cause of Annvaha srotodushti and Mandagni. It is very important to understand the relationship between gut and mental health to know aetio-pathogenesis of disorders, which will help to develop holistic approach for better treatment of Annavaha Srotas Disorders.

KEYWORDS: Annvahasrotas, Mental Stress, Agnidushti, Mandagni.

INTRODUCTION

In present era we are facing more psychological problem than physical suffering. Assorted mild or severe psychological issues are very common now a day. These psychological issues affect the healthy wellbeing of an individual. The concept of mental health has been very well adopted in Ayurveda. Along with the various modern life style changes, mental health of a person makes more and more prone for the diseases of Annavaha srotas by Mandagni. Among the entire factors for maintenance of positive health, proper digestion of food occupies the most important position because healthy digestive system is an
important factor of a person’s healthy and well being. Because good digestion assures that all of the nutrients taken in through eating are assimilated in the healthy manner. It is also described in Ayurvedic classics as Mandagni is the main cause of every disease. The symptoms of poor digestion include constipation, bloating, vomiting, diarrhoea, etc. contemporary system of medicine has given them named such as irritable bowel syndrome, ulcerative colitis, pancreatitis, etc. There are many causes of weak digestion like faulty lifestyle, Insomnia, ill dietary habits, lack of physical activity (sedentary life) and psychological issues (stress, anger, depression etc). Mental health is an important factor which affects the gastrointestinal system, so it is important to understand the role of mental health in Annavaha Srotas Vikruti (digestive disorders). This will help to develop holistic approach for better treatment of Annavaha Srotas vikruti.

AIM –
To study role of mental health in annavaha strotas vikruti.

OBJECTIVE-
To understand the relationship between gut and mental health to know aetio-pathogenesis of disorders, which will help to develop holistic approach for better treatment of Annavaha Srotas vikruti.

LITERATURE REVIEW

Our Acharyas were well known about fact that mental health has important role in diseases of Annavaha srotas. The root cause of Annavaha srotodushti is deformity of Agnidhushti1. According to fundamental principles of Ayurveda; Agni has an important role in the physiological functioning of body.

Broadly speaking this Agni can be divided into three types on the basis of substratum they act-

1. Jatharagni
2. Bhutagni
3. Dhatvagni

Jatharagni has been considered most important amongst all Agni. The functioning of other Agni (Bhutagni and Dhatvagni) is dependent on Jatharagni. The Agni transforms the food in various forms which can be easily assimilated by our body. If Jatharagi become weak, it will result into improper digestion of food and improper formation of consequently Uttarottar dhatu. Acharya Charak, Susruta and Vagbhatta have described various hetus of Agnimandhya along with mental factors.

Acharya Charak has described that Atiashan i.e.excessive intake of food, consuming Apathya, etc. are not only cause of Aamotpatti but several mental conditions such as Kaam, Krodh, Lobh, Moha, etc. are causes of Aamotpatti. He also said that various conditions like Chinta, Shoka, Bhaya, Krodha, Dukha, and Anidra are also responsible for improper digestion of food2. Acharya Susruta also said that some mental factors like Ershya, Bhaya, Krodha, Shok are the causes of improper food digestion3. In Rasvimanadhyay of Charak, he mentioned about the Aahar – Vidhi Vidhan. He said that a person should take the food with mentally comfort conditions. Means a person should be mentally happy at the time of food intake.
Various diseases of Annavaha Srotas described in classical texts, in which role of Mansik bhaav (mental factor like Ershya, Bhaya, Krodha, Shok, Chinta, Dukha) is important in Samprapti of these diseases. Some of these diseases are described below.

1. Ajirna- In Sutrasthan Acharya Vaghbhatta mentioned that Krodha, Shoka are also the hetus of Ajirna. 

2. Amlapitta -In Sutra Sthan Acharya Susruta mentioned about Guna of Pitta Dosha and he says that the Rasa of Pitta Dosha in its natural state is Katu, and when it got vitiated (Vidhagdha) its Rasa become Amla and due to Vidhagdha of Pitta this disease is called Amlapitta. So the vitiated Pitta is the main cause of Amlapitta. Acharya Susruta describes the Nidan of Vitiation of Pitta Dosha and he included Shok, Bhaya, and Krodh as hetus of Vitiation of Pitta Dosha. So we can understand that along with Sharirik Doshas, the Mansik Doshas have important role in pathology in Amlapitta.

3. Chhardi (Vomiting)- According to Acharya Charak the causes of Vataj Chhardi are Shoka, Bhaya along with the other causes of the disease. These causes vitiate the Vata Dosha. Vata Dosha vitiates the other Dosha in aamashay and provides upward direction of Doshas.

4. Atisara (Diarrhoea)- Acharya Charak and Susruta both give importance to the psychological factor in onset of disease. Acharya Charak mentioned Krodha and Irshya as hetus of the disease. Acharya Susruta also told that Bhaya and Shoka are one of the main factors for vyadhi utpatti.

5. Shoola- Acharya Madhavkar has described the causes and symptoms of Shoola in detail. He mentioned in the hetu of Vaatic Shoola (pain in intestinal obstruction) that Shok is the cause of the disease. In Paittik Shoola (Peritonitis, Cholecystitis) he said Krodh is the cause of pain.

6. Irritable bowel syndrome- Irritable bowel syndrome is Functional gastrointestinal disorder and defined by the absence of structural pathology. The primary symptoms of IBS are abdominal pain or discomfort in association with frequent diarrhoea or constipation and change in bowel habits. Approximately 20% of general population fulfil the diagnostic criteria for IBS. It is believed that most of the patients develop symptoms in response to psychosocial factor. Most of the patient seen in general practice does not have psychological problems but about 50% of patient’s referral to hospital meet criteria for psychiatric diagnosis. A range of disturbances are identified, including anxiety, depression, and neurosis. Acute psychological stress and overt psychiatric diseases are known to alter visceral perception and gastrointestinal motility in both irritable bowel patients and healthy patients.

7. Aamashay or pakvashayjanya Vrana (Peptic ulcer)- The term peptic ulcer refers to an ulcer in lower oesophagus, stomach or duodenum. Ulcer in the stomach or duodenum may be acute or chronic. An ulcer is formed when there is
imbalance between defensive factors (gastric and duodenal mucosal resistance) and aggressive factors (the digestive power of acid and pepsin). Sometimes acute ulcers may occur following stress, when they are called stress ulcer9.

There are many causes of peptic ulcers (gastric and duodenal) as H.pylori, diminished mucosal resistance, prolong intake of NSAIDs and Aspirin. Anxiety, stress and strain has always been responsible for aggravating factor of peptic ulcer10.

Anatomy of enteric nervous system-

Entire length of gastrointestinal tract is supplied by the sympathetic and parasympathetic part of autonomic nervous system (ANS). Apart from these, two different nerve plexuses are present in the gut wall. It consist mesh-like system of neurons that governs the function of the gastrointestinal system. This is referred to as the enteric nervous system. Recent researches have revealed that a large number of neuroactive substance present in these plexuses. Almost every neuroactive substance which present in central nervous system are present in these plexuses. It suggests much greater complexity of function of enteric nervous system. ENS is located within the wall of digestive tract. It comprised of two well organised neural plexuses.

Myenteric plexus (Aurbach)-it is present in between longitudinal and circular muscle layer, and it controls the gastrointestinal tract motility.

Submucosal plexus (Meissner)-it is present between circular muscle layer and luminal mucosa. It regulates the blood flow and movement of the mucosa and absorptive and secretive function of the epithelium.

The enteric nervous system includes efferent, afferent and inters neuron. Sensory neurons innervate receptors in mucosa, while motor component regulates the motility, secretion, and absorption. ENS can function autonomously. Digestion requires coordination between ENS and CNS.11

Discussion

Stress Response

To understand how stressful conditions interact with the gastrointestinal system, it is very important to understand that how body’s internal environment changes during stressful condition. The physiological response to stress consists of a rapid component and a slower one, acting in a coordinated manner to reestablish homeostasis. The rapid response is the activation of the Nervous System. This is referred to as the “sympathetic-adrenomedullary system”. The stress response begins in the brain. When someone faces stressful condition the ear or eye sends information to the amygdale. Amygdale interprets image and sound. Then it instantly sends information to the hypothalamus. Hypothalamus communicates with rest of body through autonomic nervous system. the autonomic nervous system has two components sympathetic and Parasympathetic. Hypothalamus activates the Sympathetic Nervous System by sending signals through autonomic nervous system to the adrenal glands. These glands respond by secreting the hormone epinephrine (adrenaline) into the blood stream. As epinephrine circulates through the body, it brings the number of physiological changes in gastrointestinal system as-
• Activation of sympathetic nervous system increases the blood flow to the muscles by diverting blood flow from other part of the body like gastrointestinal tract. Lack of blood supply in these conditions affects the digestion process.

• Increased sympathetic stimulation inhibits the peristalsis (motility) and increases the tone of the sphincters. Decreased parasympathetic activity decreases overall activity of gastrointestinal tract, and decreases secretion of the gastrointestinal glands.

EFFECT ON GUT FLORA-

Exposure to stress modifies the gut flora by neurotransmitter and pro inflammatory cytokines level for e.g., norepinephrine increases the virulence of some bacteria like E.coli or C. Jejuni. Thus changes in the composition of gut flora causes trouble in normal digestive process.

CONCLUSION

On the basis of above description following conclusion has been made.

• According to our classical texts and modern literature various psychological factors play significant role in pathology of gastrointestinal diseases.

• Stressful conditions activate the sympathetic nervous system. This is responsible for alteration in gut motility, permeability, and secretions.

• A variety of neurotransmitter in stressful situation modifies the gut flora, which is ultimately responsible for digestive disorders.

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