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ROLE OF MODERN DIAGNOSTIC TOOLS TO DIAGNOSE ANNAVAHA SROTAS VIKARA

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ABSTRACT

The *srotas* or channels which carry *'Anna'* or food are called *Annavaha Srotas*. This can be correlated to the gastrointestinal tract. According to *Acharya Charak*, *Annavaha Srotas* contains *mukha*, *gala*, *vamaparshwa (annanalika)*, *amashaya* and *laghuantra*. In *Ayurveda*, *Annavaha Vikara* includes Arochaka, *Ajirna*, *Amlapitta*, *Chhardi*, *Annadrava shoola* etc. According to modern aspect, namely the ooesophagus, stomach, small intestine, large intestine and rectum. Most common gastrointestinal disorders are Anorexia nervosa, Dyspepsia, Hyperacidity, Vomiting, Peptic ulcer. Due to the irregularity in diet and sedentary lifestyle, there will be disturbance in digestive system which result into many diseases, amongst them Digestive and Absorption disorder constitute an important group. Functionally weak Agni i.e. *mandagni* cause important improper digestion of ingested food which leads to gastrointestinal disorder. For diagnostic approach we observe sign and symptoms of different disorder and refer patient for different investigations like upper GI endoscopy, colonoscopy, Barium swallow, Barium enema, USG Abdomen, CT Scan, MRI etc.

KEYWORDS: *Annavaha Srotas, Agni,* Gastrointestinal disorders.

INTRODUCTION

Ayurveda is the ancient medical science. *Swasthasya swasthya rakshanam* and *vyadhiparimokshan* are the main objectives. *Annavaha srotas* is one of the important srotas described in *ayurveda*. *Chhardi, Arochaka, Ajirna, Amlapitta* and *Annadrava shoola* are the most common *vikaras* of *annavaha srotas. Annavaha srotas vikara* are increasing due to non observance of *dincharya, ritucharya, ratricharya, sadvritta, virudhha ahar, apathya sevan* and disturbed *traya upastambha* i.e. *Ahar, Nidra, Bramhacharya*. The disease *Arochaka* originates from *amashaya* itself.[1] In *Ajirna*, due to excessive *kledaka kapha* in *amashaya*, there is no effect of *amla ras* on *ahar*. *Madhurta* is the main guna of *kapha* as as it makes the food *'madhur'*. According to *Acharya Sushruta*, the *ahar* having *'madhur' guna* is called as *ama*. And the person is suffering from *Amajirna*.[2] *Chardi* is the common symptom of *amashaya vikriti*.[3] Other diseases like *amlapitta* and *annadrava shoola* originate due to *amashayagata vrana*.[4] For diagnostic approach we observe sign and symptoms of different disorder and refer patient for different investigations like Upper GI Endoscopy, Colonoscopy, USG, CT Scan, Barium Swallow, Barium enema etc. This article discusses about the role of modern diagnostic tools in *annavaha srotas vikara.*

Annavaha Srotas Vikara

Arochaka

Arochaka is loss or deficiency of appetite for food. It could be due to somatic (endogenous) or the psychic causes: the psychic factors could be grief, etc or unpleasant preparation, presentation or odour of food; whereas *doshas*, singly or jointly, were recognised as the somatic causes. Local features in the mouth resulting from anorexia due to the endogenous causes i.e. *vata, pitta, kapha* and combined involvement of *doshas* and also due to the psychic causes.[5] According to *Acharya Sushruta, agnimandya* can be the cause of *arochaka*.

Ajirna

Ajirna occurs due to excessive drinking of water, taking of incompatible diets, suppression of the natural evacuatory urges and reversal of sleeping habits, the food does not get properly digested in the human beings even if it has been taken at a proper time and is wholesome as well as light (to digest). Further the food is also not properly digested if taken by a person who is emotionally upset due to jealousy, fear, anger or greed, or who is distressed due to suffering from other diseases or who has taken food not to his liking. There are four types of *ajirna – amajirna*, *vidagdhajirna*, *vishtabdhajirna* and *rassheshajirna*. In the *amajirna*, there is a feeling of heaviness in the body, nausea and swelling in the cheek

and around the eyes; as the food is not digested, eructations appear of the same nature as that of the material ingested. In the *vidagdhajirna* type of indigestion, there is vertigo, thirst, fainting and the various other disorders due to vitiated pitta; smoky and acidic eructations, perspiration and a burning sensation are also produced. In the *vishtabdhajirna* type of indigestion, there are the symptoms and colic, flatulence and various types of vatika disorders; faeces and flatus are not passed and stiffness, confusion and bodyache also occur. In *rassheshajirna*, there is an aversion to food, precordial discomfort and heaviness all over the body.[6]

Amlapitta

The word "*Amlapitta*" comprised of two words –'*Amla'* (sour) and '*Pitta'*(Gastric juice). When a person with a pre- existing tendency for excessive pitta secretion (habitually) takes incompatible, unhygienic (excessively) sour, heart burn producing and pitta- vitiating food and drinks, there is malsecretion of *pitta*, this condition is called as *Amlapitta*. The clinicians diagnose the condition as *amlapitta* when there is dyspepsia, fatigue, nausea, acidic and sour eructations, a feeling of heaviness, a burning sensation in the regions of the heart and the throat and anorexia.[7]

Chardi

Chardi is also mentioned as *'adhaarneeya vega'*, a natural urge expressed by the body. Excessive use of liquids, excessive use of oily substances as also of disagreeble articles, too much of salts, taking meals at undesirable meals or overeating, an intake of unsuitable diet, fatigue, fear, stress, indigestion, worm infestations, pregnancy in women and taking meals very rapidly may result in vomiting; loathsome sights are the other causes of vomiting. All these lead to a sudden and forceful nausea and when the vitiated *doshas* well up in the oral cavity they are expelled through the mouth distressing the body along with a sensation as if the body parts were being broken; it is therefore called *Chardi* (Vomiting).[8]

Annadrava Shoola

Annadrava shoola is known to be that condition when the pain occurs either the food has been digested, during its digestion or even before it has been digested; it neither subsides by the use of salutary or unsalutary substances nor by taking food or by remaining without food. In a patient of *annadrava shoola*, the pain is not relieved as long as *jarat pitta* (digestive juice) is not expelled out by vomiting; it is then followed by a quick relief.[9]

Common Gastrointestinal Disorders

Anorexia nervosa

There is marked weight loss, arriving from food avoidance, often in combination with bingeing, purging, excessive exercise, or the use of diuretics and laxatives. Body image is profoundly disturbed so that, despite emaciation, patients still feel overweight and are terrified of weight gain. These preoccupations are intense and pervasive, and the false beliefs may be held with a conviction approaching the delusional. Anxiety and depressive symptoms are common accompaniments. Downy hair (lanugo) may develop on the back, forearms and cheeks. Extreme starvation is associated with a wide range of physiological and pathological bodily changes. All organ systems may be affected, although the most serious problems are cardiac and skeletal.[10]

Dyspepsia

Dyspepsia describes symptoms such as discomfort, bloating and nausea, which are thought to originate from the upper gastrointestinal tract. There are many causes, including some arising outside the digestive system. Heartburn and other 'reflux' symptoms are separate entities and are considered elsewhere. Although symptoms often correlate poorly with the underlying diagnosis, a careful history is important to detect 'alarm' features requiring urgent investigation and to detect atypical symptoms which might be due to problems outside gastrointestinal tract. Dyspepsia affects up to 80% of population at some time in life and most patients have no serious underlying disease. Patients who present with new dyspepsia at an age of more than 55 years and younger patients unresponsive to empirical require investigation to exclude serious disease.[11]

Hyperacidity

Hyperacidity is one of the commonest disease seen in people of all ages. It affects both sexes, all classes and communities. It is a medical condition, wherein acid levels of the stomach are much more than normal. Some of the peculiar symptoms of the hyperacidity are epigastric and retrosternal burning either at full or empty stomach, nausea, vomiting and abdominal discomfort. It causes uneasiness along with other symptoms like loss of appetite, heartburn, unexpected stomach pain etc.[12]

Vomiting

Vomiting is a complex reflex involving both autonomic and somatic neural pathways. Synchronous contraction of the diaphragm, intercostal muscles and abdominal muscles raises inter abdominal pressure and, combined with relaxation of the lower oesophageal sphincter, results in forcible possible ejection of gastric contents. It is important to distinguish true vomiting from regurgitation and to elicit whether the vomiting is acute or chronic (recurrent), as the underlying causes may differ.[13]

Peptic Ulcer Disease

The term 'peptic ulcer' refers to an ulcer in the lower ooesophagus, stomach or duodenum, in the jejunum after surgical anastamosis to the stomach or, rarely, in the ilium adjacent to a Meckel's diverticulum. The prevalence of peptic ulcer (0.1 to 0.2%) is decreasing in many Western communities as a result of widespread use of Helicobactor pylori eradication therapy but it remains high in developing countries. The male-to-female ratio for gastric ulcer is 2:1 or less. Chronic gastric ulcer in

usually single, 90% are situated on the lesser curve within the antrum or at the junction between body and antral mucosa. It is a chronic condition with spontaneous relapses and remissions lasting for decades, if not for life. The most common presentation is with recurrent abdominal pain which has three notable characteristics: localization with the epigastrium, relationship to food and episodic occurrence. Occasional vomiting occurs in about 40% of ulcer subjects; persistent daily vomiting suggests gastric outlet obstruction. [14]

Modern Diagnostic Tools

Endoscopy

Endoscopy is the preferred investigation in dyspepsia, hyperacidity and peptic ulcer disease.

Video endoscope have replaced fibreoptic instruments and relay colour images to a high definition television monitor. The tip of the endoscope can be angulated in all directions. Channels in the instrument are used for air insufflations, water injection, suction, and for the passage of accessories such as biopsy forceps or brushes for obtaining tissue, snares for polypectomy and needles for injection therapies. Permanent photographic or video records of the procedure can be obtained.

- **Oesophagogastroduodenoscopy (OGD)**

OGD is the investigation of choice for upper GR disorders with the possibility of therapy and mucosal biopsy. Findings include reflux is oesophagitis, gastritis, ulcers and cancer. Therapeutic OGD is used to treat upper GI haemorrhage and both benign and malignant obstruction. Relative contraindications include severe chronic obstructive pulmonary disease, a recent myocardial infarction or severe instability of the atlantoaxial joints. The mortality for diagnostic endoscopy is 0.001% with significant complications in 1 : 10000, usually when performed as an emergency (e.g. GI haemorrhage).[15]

- **Colonoscopy**

Colonoscopy is the preferred investigation for peptic ulcer disease. It allows good visualization of the whole colon and terminal ileum. Biopsies can be obtained and polyps removed. Benign strictures can be dilated and malignant structures stented. The success rate for reaching the caecum should be at least 90% after training. Cancer, polyps and diverticular disease are the commonest significant findings. Perforation occurs in 1 : 1000 examinations but this is higher up to 2% after polypectomy.[16]

Ultrasound

Ultrasound involves no radiation and is the first line investigation for abdominal distension, e.g. ascites, mass or suspected inflammatory conditions. It can show dilated fluid- filled loops of bowel in obstruction, and thickening of the bowel wall. It can be used to guide biopsies or percutaneous drainage. In an acute abdomen, ultrasound can diagnose cholecystitis, appendicitis, enlarged mesentric glands and other inflammatory conditions.

- **Endoscopic ultrasound (EUS)** is performed with a gastroscope incorporating an ultrasound probe at the tip. It is used diagnostically for lesions in the oesophageal or gastric wall, including the detailed TNM staging of oesophageal/ gastric cancer and for the detection and biopsy of pancreatic tumours and cysts.[17]

Computed Tomography

Computed tomography involves a significant dose of radiation (approximately 10 millsieverts). Modern multislice fast scanners and techniques involving intraluminal and intravenous contrast enhance diagnostic capability. Intraluminal contrast may be positive (Gastrografin or Omipaque) or negative (usually water). The bowel wall and mesentery are well seen after intravenous contrast especially with negative intraluminal contrast. Clinically unsuspected diseases of other abdominal organs are quite often also revealed. CT is widely used as a first line investigation for the acute abdomen.[18]

Magnetic Resonance Imaging

MRI uses no radiation and is particularly useful in the evaluation of rectal cancers and abscesses and fistulae in the perianal region. It is also useful in small bowel disease and in hepatobiliary and pancreatic disease.[19]

Barium swallow

Barium swallow examines the oooesophagus and proximal stomach. Its main use is for investigating dysphagia.[20]

Double contrast barium meal

Double contrast barium meal examines the oooesophagus, stomach and duodenum. Barium is given to produce mucosal coating and effervescent granules producing carbon dioxide in the stomach create a double contrast between gas and barium. This test has a high accuracy for the detection of significant pathology - ulcers and cancer- but requires good technique. Gastroscopy is a more sensitive test enables biopsy of suspiscious areas.[21]

Small bowel enema (Enteroclysis)

Small bowel enema is an alternative specific technique for small bowel examination. A tube is passed into the duodenum and a large volume of dilute barium is introduced. It is particularly used to demonstrate strictures or adhesions when there is suspicion of intermittent obstruction. Generally, this has been replaced by MR enteroclysis.[22]

Barium enema

Barium enema examines the colon and is used for altered bowel habit. Colonoscopy and CT colonography have largely replaced this examination for rectal bleeding, polyps and inflammatory bowel disease.[23]

DISCUSSION

"*Rogasarveapimandagni*" i.e. *Mandagni* is the root cause of the gastrointestinal tract. *Chardi* is a disease when the pathology is head by the vitiated *doshas*. *Amlapitta* is one of the major diseases caused by lifestyle changes and its prevalence is increasing day by day. *Arochaka* and *ajirna* are mainly caused due to *agni dushti*. Modern diagnostic tools like Upper GI Endoscopy, Colonoscopy, USG, CT Scan, MRI, Barium Swallow, Barium enema etc are useful for the diagnosis of the deep seated diseases in a particular organ. *Ayurveda* has explained the involvement of *Annavahasrotas dushti* in onset of each and every disease which can play key role in prevention of primary disease.

CONCLUSION

Srotas are the macro channels and pathways operating in a living organism for transportation of body tissues. *Annavaha srotas* described in *Ayurvedic* epics is related to structural and functional units associated with mechanical and chemical digestion in ooesophagus and stomach and small intestine. Alimentary canal, appendages of alimentary canal and their functions can be considered as *annavaha srotas*. In order to diagnose the disease on the basis of *Ayurvedic* principles, the physician should work very hard to know the subtle changes occurring inside the body due to the imbalance of *doshas*. We should be use modern tools of diagnosis to integrate our *Ayurvedic* practice in front of modern science as evidence base research.

REFERENCES

1. Madhav Nidana, Vol. 1; Edited by Shri Yadunandan Upadhyaya; Chowkhamba Bharati Academy, Varanasi, Pg. 343
2. Madhav Nidana, Vol. 1; Edited by Shri Yadunandan Upadhyaya; Chowkhamba Bharati Academy, Varanasi, Pg. 229
3. Agnivesha, Charak Samhita 'Vidhyotini Hindi tika' edited with Pandit Kashi Nath Shastri& Dr. Gorakhnath Chaturvedi, Chaukambha Bharti Academy Varanasi-221001, Reprint year: 2015, Chikitsa sthana, 20.
4. Madhav Nidana, Vol. 2; Edited by Shri Yadunandan Upadhyaya; Chowkhamba Bharati Academy, Varanasi, Pg. 203; Vol. 1, Pg. 523.
5. Madhav Nidana (Rogaviniscaya) of Sri Madhavakara – Ayurvedic Clinical Diagnosis; Edited by G.D.Singhal, S.N.Tripathi, K.R.Sharma; Chaukhamba Sanskrit Pratishthan Delhi; Pg. 117.
6. Madhav Nidana (Rogaviniscaya) of Sri Madhavakara – Ayurvedic Clinical Diagnosis; Edited by G.D.Singhal, S.N.Tripathi, K.R.Sharma; Chaukhamba Sanskrit Pratishthan Delhi; Pg. 58.
7. Madhav Nidana (Rogaviniscaya) of Sri Madhavakara – Ayurvedic Clinical Diagnosis; Edited by G.D.Singhal, S.N.Tripathi, K.R.Sharma; Chaukhamba Sanskrit Pratishthan Delhi; Pg. 356.
8. Madhav Nidana (Rogaviniscaya) of Sri Madhavakara – Ayurvedic Clinical Diagnosis; Edited by G.D.Singhal, S.N.Tripathi, K.R.Sharma; Chaukhamba Sanskrit Pratishthan Delhi; Pg. 119, 120.
9. Madhav Nidana (Rogaviniscaya) of Sri Madhavakara – Ayurvedic Clinical Diagnosis; Edited by G.D.Singhal, S.N.Tripathi, K.R.Sharma; Chaukhamba Sanskrit Pratishthan Delhi; Pg. 208, 209.
10. Text book of Davidson's principle and practice ofmedicine edited by Brian R. Walker, Nicki R.Colledge, Stuart H. Ralston, Ian D. Penman in, 22nd edition, 2014; 255.
11. Text book of Davidson's principle and practice ofmedicine edited by Brian R. Walker, Nicki R.Colledge, Stuart H. Ralston, Ian D. Penman in, 22nd edition, 2014; 852.
12. http://nhp.gov.in
13. Text book of Davidson's principle and practice ofmedicine edited by Brian R. Walker, Nicki R.Colledge, Stuart H. Ralston, Ian D. Penman in, 22nd edition, 2014; 853.
14. Text book of Davidson's principle and practice ofmedicine edited by Brian R. Walker, Nicki R.Colledge, Stuart H. Ralston, Ian D. Penman in, 2.2nd edition, 2014; 872: 873
15. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 232.,
16. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 232: 233.
17. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 233.
18. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 233.
19. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 233.
20. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 233.
21. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 234.
22. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 234.
23. Kumar and Clarke's Clinical Medicine; Edited by Parveen Kumar & Michael Clark; Eighth Edition, 2012; Pg. 234.