

## UNRIDDLING GHATI YANTRA GRAHANI – INTESTINAL TUBERCULOSIS

Dr. Rashmi R. Hegde<sup>\*1</sup>, Dr. Geetha B. Markande<sup>2</sup> and Dr. Prashanth Jain<sup>3</sup>

<sup>1</sup>II<sup>nd</sup> year P.G. Scholar, <sup>2</sup>Professor, <sup>3</sup>Professor and HOD

Dept. of Roga Nidana Evam Vikriti Vigyan.

Article Received on  
14 March 2023,

Revised on 04 April 2023,  
Accepted on 25 April 2023

DOI: 10.20959/wjpr20237-28034

### \*Corresponding Author

Dr. Rashmi R. Hegde

II<sup>nd</sup> Year P.G. Scholar, Dept.  
of Roga Nidana Evam Vikriti  
Vigyan.

### ABSTRACT

In today's modern life, people's eating preferences have significantly changed due to an increase in the intake of packed foods etc. These lifestyle changes have an impact on our digestive system and are the cause of many illnesses. *Grahani* is a *Tridoshaja Vyadhi* of *Annavaha Srotas* that occurs due to the vitiation of *Agni*. It includes congregate of diseases such as Tropical Sprue, Malabsorption Syndrome, IBS, Intestinal Tuberculosis etc. *Ghati Yantra Grahani* is a sort of *Grahani*, the sound emerges from patient's stomach just as how the pitcher is submerged in water. In the current paper an attempt is done to understand the *Ghati Yantra Grahani* understood as Intestinal

Tuberculosis.

**KEYWORDS:** *Annavaha Srotas*, *Ghati Yantra Grahani*, Intestinal Tuberculosis, *Grahani*.

### INTRODUCTION

The word *Grahani* is derived from Dhatu "*Grah*" which means to catch, to hold. It is the site of *Pachaka Pitta*, *Samana Vayu* and *Kledaka Kapha* which is responsible for digestion and metabolism. It will do the *Brahmana* and *Upasthambana* of *Agni*. If the food is not completely digested it holds until food digests. If digested then it will go for further process. But if *Agni bala* is *durbala* then food which is not digested properly, it will be sent forward for the further processing. It is a functional deformity. By *Nidana Sevana* leading to *Agni Dushti*; that becomes incapable of digesting even the lighter food. This undigested food gets fermented and turns into a poison.<sup>[1]</sup>

*Grahani* and *Agni* are interdependent to each other. Functionally weak *Agni* i.e *Mandagni*

causes improper digestion of ingested food, which leads to *Ama dosha*. This *Ama dosha* is a root cause of most of the diseases. It has pivotal importance in the pathogenesis of *Grahani*. *Grahani Roga* is considered under *Ashtamahagada*.<sup>[2]</sup>

## DISCUSSIONS

### Materials and Methods

Materials related to *Ghati Yantra Grahani* and Intestinal Tuberculosis are collected from Ayurveda Samhithas and textbook of modern medicine respectively. Relevant materials are also obtained from medical journals.

### Concept of Grahani

According to *Acharya Charaka* *Grahani* is *Adhithana* of *Agni*. It is located above *Nabhi*.<sup>[3]</sup> The disease which afflicting *Grahani* that is *Grahani Roga* is of four types- *Vattaja*, *Pittaja*, *Kaphaja* and *Sannipathaja Grahani*

*Acharya Bhava Prakasha* and *Madhava Nidana* have explained two more types of *Grahani* – they are *Sangrahani Grahani* and *Ghati Yantra Grahani*.

### Ghati Yantra Grahani

*Ghati Yantra Grahani* is a sort of *Grahani*, the sound emerges from patient's stomach that resembles the pitcher is submerged in water.<sup>[4]</sup>

*Ghati Yantra Grahani* which may be correlated to Intestinal Tuberculosis based on signs and symptoms like:

*Swapataha Pashvayoho Shoola* looks similar as Colicky abdominal pain

*Galajala Ghati Dhwani* resembles like Borborygmi

Borborygmi<sup>[5]</sup> is an abnormal high pitch sound that can be heard during digestion, usually caused by the presence of food, liquid or gas moving through the stomach and intestines. The subsequent rumbling sounds occur as a result of Peristalsis, which is the contraction and relaxation of muscles in the stomach and intestines that pushes contents further down the digestive tract. Although Borborygmi is usually a non-specific occurrence it can also result from underlying issue, the rumbling sounds will often be accompanied by other symptoms like diarrhoea, high consumption of sweeteners, fructose and sorbitol, celiac disease and lactose intolerance.

**TRITAYA OF VYADHI VINISCHAYA (Modes of diagnosis)**

For the diagnosing of any disease physician should have knowledge of three tools,

- *Samuthanna Vishesha*
- *Adhithana Antharani*
- *Vikara Prakrithi*

**i. Samuthanna Vishesha (Etiological diagnosis)**

As per Acharya Charaka, explains *Ashuchi* and *Sandhusta Bhojana*<sup>[6]</sup> on the context of contaminated meat which is responsible for Intestinal Tuberculosis.

Apart from this *Atimatra Ahara*, *Guru*, *Ruksha*, *Sheeta*, *Shushka*, *Dwista*, *Vistambhi*, *Vidaha*, *Virudha Virya* leads to *Amajanya vikara* along with that *Manasika Nidanas* like *Kama*, *Krodha*, *Loba*, *Moha*, *Irshya*, *Lajja*, *Shoka*, *Mana*, *Udvega*, *Bhaya* also influence the agni. It finally leads to *Ghati Yantra Grahani*.<sup>[7]</sup> Generally Intestinal Tuberculosis(*Ghati Yantra Grahani*) spreads by Ingestion of unpasteurized milk which contains *Mycobacterium bovis*. Intestinal Tuberculosis without pulmonary disease often results in hypertrophic mucosal changes. Intestinal involvement secondary to pulmonary tuberculosis may result from swallowing infected sputum or from biliary excretion of the organism from an infected liver. The frequency of secondary Intestinal tuberculosis increases with far advanced pulmonary disease, there are evidences which shows zoonotic tuberculosis which is even a less common form of human Tuberculosis caused by a related member of *Mycobacterium Tuberculosis* complex. It is a zoonotic form which is primarily transmitted indirectly through the consumption of dairy products or meat containing infected material.<sup>[8]</sup> The study shows Psychological issues such as isolation, stigmas, lack of social support, tension, anxiety, helplessness, depression which commonly influences the disease factors of Tuberculosis.<sup>[9]</sup>

**ii. Adhithana Antharani (Pathological diagnosis)**

By *Nidana sevana* leading to *Ama dosha* which takes *Sthanasamshraya* in *Pittadara kala* leads to *Grahani dushti*, *Pakwa* and *Apakwa anna nirharna* from *Adhomarga* leads to *Grahani Roga*. *Pittadhara kala* is on sixth number which lies in between *Amashaya* and *Pakwashaya* i.e, *Grahani* which is understood as Small Intestine.<sup>[10]</sup> According to Acharya Vagbhata being the abode of internal fire, it will holds by force, the movement of food material passing from *Amashaya* i.e, stomach into the *Pakwashaya* i.e, Intestine, digest food by heat of *Pitta*, absorbs it and allows the digested food to move further. The role of *Pittadhara kala* reflexes the mucus

membrane functions of small intestine.<sup>[11]</sup>

### Steps in the pathogenesis of Intestinal Tuberculosis

There are several ways by which tuberculosis can involve Intestine. Firstly, the tubercle bacilli may enter the intestinal tract through the ingestion of infected milk or sputum. The mucosal layer of the Intestine tract can be infected with the bacilli with formation of epithelioid tubercles in the lymphoid tissue of the sub mucosa. After 2-4week, caseous necrosis of the tubercles leads to ulceration of the overlying mucosa which can later spread into the deeper layers and into the adjacent lymphnodes.<sup>[12]</sup>

### iii. Vikara Prakrithi (Clinical diagnosis)

It is made on the basis of *Vyadhi Prathyanika Lakshana*. The disease *Grahani* is having *Prathyanika Lakshanas* such as *Muhur Badham Muhur Dravam* which either of one is dominant. In other context while explaining *Ghati Yantra Grahani* the dominant features are *Ghalajala Ghati Dhvani* and *Swapataha Pashvayoho Shoola* have been mentioned.

*Grahani's* premonitory symptoms include *Balakshaya, Klama* and *Antra Kujana*.<sup>[13]</sup> *Grahani Roga* general symptoms are *Shoonapadakara, Krisha, Chardi, Jwara* and *Loha Amagandhi Udghara*.<sup>[14]</sup>

Intestinal tuberculosis clinical features will included the symptoms of Protean, Colicky abdominal pain, Borborygmi and Vomiting. Due to poor digestive system in case of Intestinal Tuberculosis leads to Nausea followed by Vomiting. Where in classical features of Intestinal Tuberculosis, Abdominal Pain will get subside after vomiting.

The Gastro Intestinal Tuberculosis is categorized into Ulcerative and Hypertrophic. In case of Ulcerative Intestinal Tuberculosis there will be Chronic Diarrhoea and Malabsorption.<sup>[15]</sup> Diarrhoea is related to Steatorrhea and Malabsorbtion Syndrome where diarrhoea flushes the fluid and electrolyte from the system leading to Tiredness, muscle contraction, increased fluid and gas in intestine. This causes the sounds of watery stool splashing through the gut to be louder. Due to reduction of the level of small intestine enzymes which leads to reduction in nutritional absorption and also produce sounds. Abdominal pain which is the feature of intestinal tuberculosis is more specific to hypertrophic variety. Further defecation or diarrhea subsides the pain. As Gastro Intestinal problems are related to Anxiety or Depression thus produces mental tiredness.<sup>[16]</sup> Since the malabsorption via small intestine affects the

absorption of vitamin B12 which in turn produce tiredness, weight loss<sup>[17]</sup>, muscle wasting etc.

In *Samhithas* we have the reference where the improper management or untreated *Grahani* leads to *Udara* where the *lakshanas* include *Shopha* in *Kara* and *Pada*, *Adhmana* in *Kukshi*, *Atopa*.<sup>[18]</sup> Similarly, if Intestinal Tuberculosis is not treated, it causes Ascites followed by Pedal Oedema.

## CONCLUSION

Diseases and the mere causes which are mentioned in *Samhitas* are having scientific background where in the present paper an attempt has been made to give a probable correlation of the *Ghati Yantra Grahani* with the help of *Tritaya* of *Vyadhi Vinishchaya* to the *Intestinal Tuberculosis* based on the signs and symptoms such as colicky abdominal pain, Borborygmi and the causative factors. *Mithya Aahara and Vihara* cause of the *Agni Dushti*, which leads to *Ama dosha* and finally it results into *Grahani Roga*. It is disease of *Annavaha Srotas* and *Tridoshaja* category occurs due to the vitiation of Agni. This article may help for further research works.

## REFERENCES

1. Charaka Samhita, Chikitsasthana, Grahani Dosha Chikitsa Adhyaya, 15/44: 517.
2. Vagbhatta Asthanga Hridaya Sarvangasundara of Arundatta, Sutra Sthana, Chaukambhaprakashan, Varanasi, 2002; 30.
3. Charaka Samhita, Chikitsasthana, Grahani Dosha Chikitsa Adhyaya, 15/56-57: 517.
4. Shri Madhavakara, MadhavaNidana, Madhukosha commentary by Shrivijayarakshita and Srikanthadatta, Grahaniroga Nidana, 4/4: 162.
5. <https://www.osmosis.org/answers/borborygmi>
6. Charaka Samhita, Chikitsasthana, Grahani Dosha Chikitsa Adhyaya, 15/42: 517.
7. Charaka Samhita, Vimana sthana, Trividha Kushiya Adhyaya, 2/8: 238.
8. <https://www.woah.org/en/disease/bovine-tuberculosis>
9. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4745187>
10. Sushrutha Shareera Sthana 4 Garbha Vyakarana shareeram Verse no 12, Shastri Ambika dutta, sushrutha samhitha part 1 reprint edition, Varanasi. Chowkhambha prakshan, 2005; 30.
11. Atul S. Jain et al: An Anatomical Study Of Pittadhara Kala- A Review Article.
12. K. V Krishna Das, Textbook of Medicine 5<sup>th</sup> edition, 8<sup>th</sup> chapter, 481.

13. Sushruta Samhita, Uttarantra, Atisaraprathishedha Adhyaya 40/173
14. Charaka Samhita, Chikitsasthana, Grahani Dosha Chikitsa Adhyaya, 15/53-54.
15. <https://www.sciencedirect.com/topics/medicine-and-dentistry/gastrointestinal-tuberculosis>
16. <http://www.mentalhelp.net/blogs/can-gastric-disorders-contribute-to-anxiety-and-depression/>
17. <http://www.jagranjosh.com/general-knowledge/what-is-gastrointestinal-tuberculosis-1663592884-1>
18. Charaka Samhita, Chikitsasthana, Udarachikitsa Adhyaya, 13/21.