AN OBSERVATIONAL STUDY TO VALIDATE THE SYMPTOMS OF PARINAMASOOLA IN PATIENTS WITH CARDINAL FEATURE - PAIN IN THE ABDOMEN DURING THE PROCESS OF DIGESTION

Remya Raveendran¹, R Sreekumar², Farseena K³, Madhu P. M⁴

¹Assistant Professor, Department of Roganidana, Santhigiri Ayurveda Medical College, Palakkad, Kerala, India
²HOD, Department of Roganidana, Government Ayurveda College, Thiruvananthapuram, Kerala, India
³Assistant Professor, Department of Roganidana, Government Ayurveda College, Kannur, Kerala, India
⁴Assistant Professor Department of Roganidana, Government Ayurveda College, Kannur, Kerala, India

Email: remyaayu@gmail.com

ABSTRACT

Background and Objective: The first and most important step of systematic treatment is the scientific diagnosis. Parinamasoola, a type of soola characterised by pain in abdomen during the digestion of food. By validating the symptoms using research methodology in patients with this particular cardinal feature may contribute much for making a systematic approach in diagnosis and also helps in adding some more symptoms according to current situation. Method: 50 Patients above the age of 20, with cardinal feature - Pain in the abdomen during the process of digestion were included in the study from the OPD of GAVC Kannur. A detailed proforma was made with the symptoms explained in the classics and some more symptoms from diseases which share similar pathogenesis. The symptoms validated in patients by using modified proforma after pilot study. The observations were analysed using descriptive statistical methods. Results: most of the symptoms explained by Acharyas were found to be very significant and some were found to be insignificant in the study population and some additional symptoms were also found to be significant. The dosha predominance of disease in the study population was Sannipathika. The severity is more in Vathapitta prakruthi. Rasa and raktha dhatus, were the dusiyas and annavaha, rasavaha and pu- reeshavaha were the srothuses involved. Agnimandya was evident in the Jadaragni level. Interpretation and Conclusion: Most of the symptoms explained in the classics were found to be valid in parinamasoola along with some associated symptoms.

Keywords: Parinamasoola, Symptoms, Validation

INTRODUCTION

Gastrointestinal disorders are very common nowadays, the current lifestyle is in a superfluous urbanized social situation which is extra ordinarily sophisticated and so apparently our lifestyle is transformed by all means in our dieting and behavioural pattern. In this hurried lifestyle, we tend to eat anything and everything without considering the rules and regulations explained in Ayurveda for food intake. In Ayurveda, Acharyas has
described so many gastrointestinal diseases in which impairment of agni plays a major role. Parinamasoola is a major disease of gastrointestinal system which is characterised by pain in the abdomen during the process of digestion. Nowadays parinamasoola has become a common condition so this disease need a scientific validation. The first and most important step of systematic treatment is the scientific diagnosis of disease. Precise diagnosis always helps one to assess exact clinical condition and to intervene in an appropriate manner. Present clinical practice in ayurveda needs a precision with proper appraisal of signs and symptoms in a systematic way. First step in this regard is the validation of clinical features in each and every clinical situation. The clinical features of parinamasoola need clear practical definitions and methods of measures for precise appraisal with reference to different types of patients. Keen observation of patients with the particular cardinal feature may contribute much for making a systematic approach to diagnose the variety and severity of the clinical condition and also helps in adding some more symptoms according to current situation.

Materials and Methods

Study design : Hospital based observational study

Study population
1. Patients attending the OPD & IPD of GOVT Ayurveda college Kannur, Pariyaram
2. Patients attending the OPD & IPD of the department of gastroenterology in Pariyaram medical college.

Aim and objective
To validate the symptoms of parinamasoola.

Sample size
Maximum number of cases at the time allotted for study subjecting to a minimum of 50 cases.

Inclusion criteria
1. Patients appearing with abdominal pain during the process of digestion for at least 6 months.
2. Patient above 20 years of age.

Exclusion criteria
1. Diagnosed patients of other serious conditions like CA & peritonitis
The synopsis of the study was presented before institutional ethical committee and got approved. After that, a detailed proforma was prepared by discussing with the experts in Roganidana. The first part of proforma consisted of preliminary data regarding the samples. Second part consists of modern parameters related to the signs and symptoms of the disease along with the aggravating and relieving factors. The third was to assess the history, including the history of present and past illness, family history and personal history. The fourth part include general and systemic examinations, investigations and diagnosis. The fifth part is mentioned to assess the Ayurvedic vikriti pareeksha i.e. Ash tasthanapareeksha and Dasavidhpareeksha. Dashavidhpareeksha includes assessment of doshadushti, dhatudushti, srothodushti and others. The sixth part consists of the validation of symptoms of vathika, paithika, kaphaja type of parinamasoola in conjunction with some associated symptoms of gastrointestinal tract. A pilot study was done according to the proforma prepared in 20 patients. Some symptoms were found to be irrelevant as it was absent in patients selected with inclusion and exclusion criteria. So, decided to omit that symptoms.

The omitted symptoms are: -
Vepanam, Kaduthikthopasamanam, Sammoham, Moothravibandham, Upasamana with snigdhoshnaha and, Seethe samaprayasoolam
The associated symptoms taken are found to be relevant after the pilot study so accepted that symptoms. Clinical proforma has been altered according to the pilot study.

Clinical Study
Informed consent was obtained from samples before participating in the study. Data was collected from the samples as per the prepared proforma. The collected data was systematically recorded into a digital format by using the Microsoft Excel Worksheet.

Assessment Parameters
The study includes assessment of various parameters like prakruthi, ahara, vihara, aggravating factors, relieving factors, srothodushti nidanas, agni, doshas, dushyas, srothas and other pareekshas for assessing the rogabala and rogibala, in addition to assessment of symptoms of vathika, paithika, kaphaja parinama soola as well as some associated symptoms.
Collection of Symptoms: The diagnosis of a disease in OP level mainly depends upon the clinical features presented by the patients. The assessment of symptoms based on a common criterion makes the diagnosis more scientific and this method can be used for generalised and uniform diagnosis. Symptoms of vathika, paithika and kaphaja parinamasoola described in classical texts were collected. A definition of each symptom was prepared according to classical references and by the clinical experience of doctors. It is given in table 1, 2 & 3

Associated Symptoms
Along with the above, some more symptoms which are seen commonly in diseases of annavaha srothodushti also incorporated. These symptoms include: Avipakam, Aruchi, Karshyam, Prasekam, Sirasoolam, Hrithsoolam, Angagouravam, Udarakouravam, Angasadam, Thikhamlodgaram, Hrith daham, Kanda daham, Kshuth nasam.

The symptoms like Avipakam, Aruchi, Thikhamlodgaram, Gouravam, Hrith daham and Kanda daham are taken from the disease amlapitha, which is said to be the poorvaroopa of parinamasoola. Karshyam and sirahsoola are taken from lakshanas of vathika gulma, which has a close relationship with parinamasoola. Hrithsoola and praseka are taken from arochaka. Angasadam and Kshuthnasam are taken from udara-roga lakshanas.

It is explained in table 4

Statistical analysis
The presence and absence of each symptom were marked as 1 and 0. Then calculated the percentage of individual symptoms in patients.

Analysis of clinical data
The collected data was entered into a master excel sheet prepared according to the proforma. The individual symptoms for assessing each variable were entered in a separate excel sheet. The symptom present in each case was entered as vathika, paithika, kaphaja parinamasoola and associated symptoms. After recording the investigations, general investigation, systemic examinations, Ayurvedic nidanas were entered as per proforma. The aharas were grouped into four classes and were recorded. The data of doshas, dhatus and srotases were also recorded. Data collected from samples after clinical study were statistically analysed, using the methodologies in descriptive statistics and the percentage of distribution of each variable in the sample was found out.

Results

Distribution of sample according to type of food
Among the 50 patients studied, 74% preferred spicy food, 6% preferred oily food 12% preferred fried food and 8% prefer non spicy food.

Distribution of sample according to predominantly used rasa
Out of the 50 patients 12 % predominantly used madhura rasa, 2% used amla rasa, 12% predominantly used kadu rasa, 2% use Kashaya rasa, 8% used amla kadu rasa and 64% used amla lavana kadu rasa pradhanaahara.

Distribution of sample according to prakruthi
Out of the 50 patients studied, 58% were with vatha pitta prakruthi, 32% were with vatha kapha prakruthi and 10 % were with pitta kapha prakruthi.

Distribution of sample according to dosha predominance
Among the 50 patients studied 66 % showed features of vathapitta vruddhi, 24% shows features of vathakapha vruddhi and 10% showed the features of pitta kapha vruddhi.

Distribution of sample according to dhatu vridhi
While analysing the dhatu dushti lakshanas in 50 patients under investigation, 76% had rasa dhatu dushti lakshanas and 34% had raktha dhatu dushti lakshanas.

Distribution of sample according to srothodushti
Out of 50 patients under study, 82% had the features of annavaha srotho dushti, 76% had the features of Rasavaha srotho dushti and 56% had the features of pureshavaha srotho dushti.

Distribution of sample according to vathika parinamasoola lakshanas
While considering 50 patients under investigation, 96% of them had the symptom adhmanam, 76% had symptom atopam, 56% had malasangam and 72% had arothi. Chart no 1

Distribution of sample according to paittiaka parinamasoola lakshanas
Out of the 50 patients studied, 60% had the symptom *trishna*, 82% had the symptom *daha*, 58% had the symptom *swedam* and 90% had the symptom *kaduam-lalavanantharasoolam*. Chart no 2

**Distribution of sample according to kaphaja parinamasoola lakshanas**

Out of the 50 patients studied 64% were with the symptom *chardi*, 54% were with symptom *hrillasam* and 72% were with the symptom *swalparukdeerkhaamubandhi*. Chart no 3

**Distribution of sample according to associated symptoms**

Among the 50 patients studied, 62% had the symptom *kshuthnasam*, 76% had the symptom *avipakam*, 70% had the symptom *arochkam*, 54% had the symptom *karshyam*, 60% had the symptom *prasekam*, 88% had the symptom *hrithsoolam*, 58% had the symptom *sirasoolam*, 88% had the symptom *udaragouravam*, 58% had the symptom *gathragouravam*, 76% had the symptom *angasadam*, 92% had the symptom *thikhamlodgaram* and 90% had the symptoms *hrithdaham* and *kandadaham*. Chart no 4

**DISCUSSION**

1. **Type of food taken:** 74% of sample preferred spicy food, which is *kadu*, *lavana rasa pradhana* and *pitta vardhaka*. *Lavana* is *vatha samana* and *kadu* is *kapha samana*. So due to the continuous use of these *rasas*, *pitta* will increase and *vatha kapha* will decrease. This will alter the normal digestive process and enhance the *samprapthi* of *parinamasoola*.

2. **Predominantly used *rasa***: The patient’s preferred *kadu, amla lavana* predominant food. This can be considered as an indicator of the cause of disease. *Kadu amla lavana rasa* are responsible for *pitta vruddhi*. Here the *dravaguna* of *pitta* will increase due to the continuous use of these *rasas*. That is quality of *pitta* got altered, this will precipitate in the *agnimandya* and *ama* formation. This will lead to a *samapitta avastha* of koshta. This *samapitta* in long run will produce *amlapitta* and then reaches to the *samprapthi* of *parinamasoola*.

3. **State of dhatudushti in parinamasoola:** The disease is a product of *agninamda* and *ama* formation, so the first *dhatu* that is the *rasa dhatu* will be deranged in this condition. *Dushta rasa dhatu* in long run will vitiate the *raktha dhatu*. And also, the use of *kadu, amla, lavana rasas* which are ushna in property and responsible for *pitta vruddhi* will support the *raktha dushti*.

4. **State of srothodushti in parinamasoola:** *Annavaha srotho moola* is *amasaya* so any cause influencing the normalcy of *agni* or *amasaya* also influences the *srothas* having *moolasthana* there. *Rasa vaha srothas* is the channel for the *rasa dhatu* to flow. So due to the vitiation of *rasa dhatu*, the *rasa vaha srothas* also will vitiate. *Apana vatha vaigunya* is very evident in this disease. It is *Apana vatha*, which help the proper elimination of *pu-reesha*. When it became impaired, it may lead to *srothodushti*.

5. **Validated symptoms of parinamasoola:** Most of the patients in this study were *vathapitta prakruthi*. In those patients, the symptoms are predominantly *vatapaittika*. In *kaphapithaprakruthi* patients, *kapha pitta* symptoms were seen more. On the basis of this study *parinamasoola* is a *sannipathika* disease. For better understanding of the disease it can be classified in to *vathadhika, pittadhika* and *kaphadhika sannipatha parinamasoola*. In digestive process all the three *doshas* plays equal role, although *pachaka pitta* is the digestive fire without the help of *samana vatha* and *kledaka kapha* it can’t fulfil the process. As *parinamasoola* is a product of impaired digestion, all the three *doshas* plays somewhat similar role in the *samprapthi* of *parinamasoola*.

6. **Associated symptoms:** The associated symptoms were selected from the clinical experience and also from some diseases which share the similar *samprapthi*. This associated symptom also shows relevance in *parinamasoola*.

**CONCLUSION**

Most of the patients in the study belongs to middle age, *pitta* predominant age group. *Agni mandya* is very
The sample studied mainly belong to vatha pitta prakruthi and the dosha vitiation also is vatha-paittika. Rasa dhatu and rakthadhatu are the involved dhatus. In the first stage of disease rasa dhatu is involved, and in the later stage rakthadhatu also got involved. The srothuses involved are annavaha, rasa vaha and pureeshavaha srothus. The risk factors include spicy and kadaumalalavana predominant food.

The clinical study almost follows the symptoms explained by the classical texts like Yogaratnakara and Madhava Nidana. In vathika parinamasoola Vepanam, moothravibandham and snigdhsna upasamanam did not show any clinical significance. In paithika parinamasoola, seethe samaprayasoola did not show any clinical significance. In kaphaja parinamasoola, sam-moham and kaduthikthopasamanam did not show any clinical significance. All the other symptoms explained by the Acharyas had very high clinical significance. The clinical presentation of the disease in the sample pointed to the involvement of all the three doshas, with a vathapittadhihka predominance. The associated symptoms incorporate in the study also showed very high significant in the clinical study.

REFERENCES

15. Martin H. Floch, Netter’s gastroenterology, 2nd edition
17. Dr B.D Chaurasya, human anatomy, 6th edition, CBS publishers and distributors (P) limited.
## Tables

**Table 1:** Assessment of *vathika parinamasoola lakshanas*

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Elicited as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhmanam</td>
<td>Distention of abdomen with gurgling sound and severe pain</td>
</tr>
<tr>
<td>Atopam</td>
<td>Gurgling sound of abdomen</td>
</tr>
<tr>
<td>Vidsangam</td>
<td>Non-elimination of stool</td>
</tr>
<tr>
<td>Arathi</td>
<td>Restlessness</td>
</tr>
</tbody>
</table>

**Table 2:** Assessment of *paithika parinamasoola lakshanas*

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Elicited as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trishna</td>
<td>Thirst</td>
</tr>
<tr>
<td>Daha</td>
<td>Burning sensation</td>
</tr>
<tr>
<td>Arathi</td>
<td>Restlessness</td>
</tr>
<tr>
<td>Swedam</td>
<td>Perspiration</td>
</tr>
</tbody>
</table>

**Table 3:** Assessment of *kaphaja parinamasoola lakshanas*

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Elicited as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chardi</td>
<td>Vomiting</td>
</tr>
<tr>
<td>Hrillasam</td>
<td>Nausea</td>
</tr>
<tr>
<td>Swalparukdeerkhaanubandhi</td>
<td>Mild pain persists for long time</td>
</tr>
</tbody>
</table>

**Table 4:** Assessment of associated symptoms

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Elicited as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avipakam</td>
<td>Indigestion</td>
</tr>
<tr>
<td>Aruchi</td>
<td>Anorexia</td>
</tr>
<tr>
<td>Karshyam</td>
<td>Weight loss</td>
</tr>
<tr>
<td>Prasekam</td>
<td>Excessive salivation</td>
</tr>
<tr>
<td>Sirasoolam</td>
<td>Headache</td>
</tr>
<tr>
<td>Hrithsoolam</td>
<td>Heart pain</td>
</tr>
<tr>
<td>Angagouravam</td>
<td>Heaviness of body</td>
</tr>
<tr>
<td>Udaragouravam</td>
<td>Heaviness of stomach</td>
</tr>
<tr>
<td>Angasadam</td>
<td>Tiredness</td>
</tr>
<tr>
<td>Thikthamlodgaram</td>
<td>Eructation of bitter and sour taste</td>
</tr>
<tr>
<td>Hriddaham</td>
<td>Heart burn</td>
</tr>
<tr>
<td>Kandadaham</td>
<td>Burning sensation of throat</td>
</tr>
<tr>
<td>Kshuthnasam</td>
<td>Diminished appetite</td>
</tr>
</tbody>
</table>
Charts

Chart 1: Distribution of samples according to *vathika parinamasoola lakshana*

![Chart 1: Distribution of samples according to *vathika parinamasoola lakshana*](chart1.png)

Chart 2: Distribution of sample according to *paittika parinamasoola lakshanas*

![Chart 2: Distribution of sample according to *paittika parinamasoola lakshanas*](chart2.png)

Chart 3: Distribution of sample according to *kaphaja parinamasoola lakshanas*

![Chart 3: Distribution of sample according to *kaphaja parinamasoola lakshanas*](chart3.png)
Chart 4: Distribution of sample according to associated symptoms

Source of Support: Nil
Conflict of Interest: None Declared