



AYURVEDIC MANAGEMENT OF NON-SPECIFIC MESENTERIC LYMPHADENITIS – CASE STUDY

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ABSTRACT

Mesenteric lymphadenitis is one of the common causes of abdominal pain in children. Features of mesenteric lymphadenitis include abdominal pain, often centred on the lower right side and fever with mesenteric lymph node enlargement. It arises due to several factors responsible for inflammatory response within mesenteric lymph nodes, including viral or bacterial infections, inflammatory bowel disease, lymphoma, etc.; sometimes the cause is unidentified. The features of Mesenteric lymphadenitis in Ayurveda may be correlated with *Granthi* (~Cyst), *Gulma* (~lump), *Grahani* (~disorder of lower G.I.T), *Tuni* (~ bladder pain radiating to anus and penis) and *Anaha* (~tympanites) but resemble more with *Vatika and Paittika Gulma* (lump due to *Vata* and *Pitta*). A known case of non-specific mesenteric lymphadenitis, age 14 years male child, weighing 39.0 kg, presented with pain abdomen with feverish body, few cent-metric sized lymph nodes in right iliac fosse, few peri-portal and peri-pancreatic lymph nodes measuring 17/9 mm and 20/8 mm on HRSG, Interventions given were *Chausathpraharippali*, *Ras sindur*, *Panchammrita Parpati*, *Sutshekhar ras*, *Ashwagandha Ghanvati*, *Jeerkadyarista*, and *Patoladikasaya* showed curative effect due to their *Vata-Pitta* Pacifying, *Vatanulomak*, *Shrotoshodhaka*, *Balya* and *Brimhana* effect. No adverse effect was seen. Further studies may be taken up for diseases involving mesenteric lymphadenopathy for the collection of evidence.

Keywords: Lymphadenopathy, lymphadenitis, Mesenteric lymphadenitis, Pain abdomen in children

INTRODUCTION

Lymphadenitis is painful inflammation and swelling of lymph nodes.¹ Mesenteric lymphadenitis is inflammation of lymph nodes situated in the mesentery. It is one of the common causes of abdominal pain in children. Features of mesenteric lymphadenitis include abdominal pain, often centred on the lower right side. Still, the abdominal pain can be more widespread along with general abdominal tenderness and fever with mesenteric lymph node enlargement. Acute mesenteric lymphadenitis causes right lower quadrant pain as in acute appendicitis. It arises due to several factors responsible for inflammatory response within mesenteric lymph nodes. These include viral infections, bacterial infections, inflammatory bowel disease or lymphoma. Two common gram-negative bacteria known to cause mesenteric adenitis are *Yersinia pseudotuberculosis* and *Yersinia enterocolitica*.² Some others include salmonella, *E.coli* and streptococci. When lymphadenopathy results due to unidentifiable causes, it is termed primary, and when it results due to infection, malignancy, etc, it is called secondary lymphadenopathy.³ (Macari M et al.) Abdominal ultrasonography, which is the gold standard for the diagnosis of mesenteric adenitis, shows enlarged, hypo-echoic mesenteric lymph nodes and the absence of a thickened blind-ending tubular structure (inflamed appendix) is diagnostic of mesenteric lymphadenitis. The current radiological definition defines mesenteric adenitis as at least one abnormally enlarged lymph node measuring 8 mm or more in its short axis diameter⁴.

As per Ayurveda, if a disease having not have a specific name, it can be treated according to its *Nidana* (~aetiological factors), *Lakshana* (~symptoms), *Samprapatti* (~pathogenesis), after proper examination of the patient in various respective factors indicating the strength i.e. *Rogi Pariksha*. The features of mesenteric lymphadenitis may be correlated with *Granthi* (~Cyst), *Gulma* (~lump), *Grahani* (~disorder of lower G.I.T), *Tuni* (~ bladder pain radiating to anus and penis) and *Anaha* (~tyimpanites) but resemble more

with *Vatika Gulma* (~lump due *Vata*) and *Paittika Gulma* (~lump due to *Pitta*). The problem seems to arise with faulty intake of food items, i.e *Mithya Ahara*, affecting mainly *Kostha* (~abdomen).

Patient Information

A 14-year-old male child weighing 39.0 kg, with a known case of non-specific mesenteric lymphadenitis, visited the outpatient department on 29.10.2022. Complaints were recurrent abdomen pain and occasional mild fever for two months. Previous history of jaundice diagnosed on 24.09.2022 with treatment history using cefixime, paracetamol, mefenamic acid, dicyclomine, etc. The child's *Prakriti* (~somatic constitution) is *Vata-Pitta* predominant, with a history of taking fast food frequently from outside vendors and belonging to a lower socio-economic group. Developmental history was standard, and such a case has no family history.

Clinical findings

Clinical features during admission were abdominal pain and a feverish body. Abdominal pain was present mainly on the right lower side. On examination, mild tenderness was found in the lower part of the abdomen, i.e., in the right iliac and umbilical region. No family history of such disease was found.

Timeline of the Case

The duration of medication for mesenteric lymphadenitis was from 29.10.2022 to 03.01.2023, i.e., two months and six days. Table 1 provides a detailed timeline of therapeutic interventions.

Diagnostic Assessment

The assessment was done using NRS (Numeric rating scale) [5] for pain, blood investigations like SGOT, SGPT for assessment of liver functions, Complete Blood Count and HRSG (High-Resolution Sonography) for visualisation of lymph node enlargement.

Therapeutic Interventions

Oral Ayurvedic medicines included *Chausathpraharippali* 250 mg, *Rasa sindura* 40 mg *Panchamrita Parpati* 125 mg, *Sutshekhara Rasa* 125mg, thrice a day with honey. Along with these, *Ashwagandha*

Ghanavati 250 mg 2 tablet twice a day, *Jeerkadyarista* 10 ml and *Patoladikasaya* 10 ml twice daily with equal amounts of lukewarm water after meal. Easy digestible foods such as yellow lentils as pulse, pointed guard, bottle guard, *Sahajana* (*Moringa oleifera*), pumpkin as vegetables, and curry made with coconut or mustard oil were advised along with proper sleep. Refined oils and junk food were contraindicated.

Follow-up & Outcome

At the time of presentation, the pain in the abdomen, according to the NRS Scale, was 7. At follow-up after 17 days, it was 0. There was complete relief in all his symptoms. The treatment also showed positive results in the blood parameters: total RBC and Hemoglobin levels increased. On HRSG, no enlarged lymph node was seen. SGOT and SGPT levels remained within normal limits. The child's weight improved from 39 kg to 42 kg.

DISCUSSION

Clinical features of this patient may be correlated with *Gulma* (~lump) described in Ayurveda with a predominance of *Vata* and *Pitta*. In Charak Samhita it is mentioned that *Gulma* arises in Those who are already *Krishna* (~weak)^[6] i.e the body in the condition of *Kshyaya* (~emaciation). Nowadays, this problem is seen frequently, possibly due to increasing fast food trends, lack of following dietetic rules, increasing stress and diagnostic availability. It is often not tuberculosis, and it is impossible to exclude its possibility despite regular laboratory investigations, but symptoms persist. In such a condition, Ayurveda plays a more beneficial role in relieving the symptoms and their pathology. Acharya Charaka has also described the features such as *Shula* (~Pain abdomen), *Granthi* (~swelling), and *Jwara* (~fever) in *Vatika Gulma*^[6]. In *Pittaja Gulma*, *Paittika* features like *Sparshashaha* (~tenderness), and fever were mentioned in this patient. There is also a history of jaundice 15 days ago, which is *Pitta* predominant disease leading to weakness (~*Krishata*) in the patient. *Chausathprahri Pippali* [7] is made up of *Pippali* (*Piper longum*), which has *Agnideepana*

(~digestive power enhancer), *Amapachaka* (~improves digestion of *Ama*, which is formed after improper digestion) and rejuvenating properties. It showed a curative effect in alleviating abdominal pain, fever and other symptoms associated with mesenteric lymphadenitis. *Rassindur* acts as a rejuvenating drug [8] which is used to treat fever, jaundice, and immune and nervous system-related diseases.^[9] It is also used for *Shula* (~pain), *Kshaya* (~emaciation), *Gulma*, *Pandu* (~Anemia), *Agnimandya* (~decreased digestive power) *Vrana* (~wound) etc.^[10] *Panchammrita Parpati* contains *Shuddha Gandhaka*, *Shuddha Parada*, *Kant Lauh Bhasma*, *Vajrabhraka Bhasma* and *Tamra Bhasma*, which is used in treatment of *Grahani*, *Jwara* (~fever), *Kshaya*^[11]. *Sutsekhar Ras* (*Amalpitta Rogadhikar in Yog Ratnakar*), indicated in *Amalpitta* (~Acid peptic disorder), *Gulma*, *Agnimandya*, *Grahniroga*, *Atisara* (~Diarrhea), *Kasa* (~coughing) and *Shwasroga* (~dyspnoea)^[12]. *Ashwagandha* (*Withania somnifera*) widely used Ayurvedic medicine known as Indian Ginseng possess *Rasayan* (~rejuvenating), *Balya* (~tonic), *Kshayanashaka* (~anti-emaciating) and *Shothahara* (~anti-inflammatory) property.^[13] *Jeerkadyarista* corrects digestive diseases such as *Grahni* and *Atisar*.^[14] *Patoladi Kashaya* is made by *Patol Patra*, *Triphala*, *Kutuki*, *Shati*, *Vasa*, and *Guduchi*. It is beneficial in *Kapha* predominant fever.^[15] The medicines prescribed to this patient showed curative effects due to their *Vata-Pitta* Pacifying, *Vatanulomak*, *Shrotoshodhaka*, *Balya* and *Brimhana* effects. It increased the level of RBC and Hb due to their *Agnideepak* and nourishing effect, mainly due to *Sutsekhar Ras*, *Panchamrit Parpati*, *Ashwagandha* and *Patoladi Kashaya*.

CONCLUSION

The problem of abdominal pain due to mesenteric lymphadenitis is becoming common in children and hurting the growth and development of the growing child, so it is necessary to find safe, palatable, immunomodulator, growth promoter medicine for this problem. Ayurvedic treatment with *Chausathpraharipippali*, *Rasasindur*, *Panchammrita parpati*, *Sut-*

shekhar Ras, Ashwagandha Ghanvati, Jeerkadyarista, and Patoladi Kashaya showed curative effect on mesenteric lymphadenitis. No adverse effect was seen. These medicines not only alleviate the symptoms but also improve the strength and weight of the

patient. The medicines are palatable and cause no discomfort. Further studies may be conducted on diseases involving mesenteric lymphadenopathy for evidence collection.

Table no. 1- Showing timeline with therapeutic interventions

Date and day of visit	Patient summary initial and follow-up visit	Interventions given
29.10.22	Feverish but no fever, feeling unwell, Pain in abdomen. Investigation done are SGOT,SGPT,CBC and High Resolution Sonography.	<ul style="list-style-type: none"> • <i>Chaushathpraharippali</i> 250mg, • <i>Rasasindura</i> 40 mg • <i>Panchamrita Parpati</i> 125mg, • <i>Sutshekhara Rasa</i> 125mg, All above medicines as one dose, was given thrice a day with honey. <ul style="list-style-type: none"> • <i>Ashwagandha Ghanavati</i> 250 mg 2 tabs twice a day, • <i>Jeerkadyarista and Patoladi Kashaya</i> each 10 ml two times with equal amount of lukewarm water after meal.
17.11.2022	No pain in abdomen, feeling well	Same as above
27.12.22	Pain absent, patient feel well,	Same as above, given only for 7 days then all medicines were stopped
10.01.23	No pain in abdomen, only runny nose	<i>Gojihwadi Kwatha</i> 10 ml twice daily. <i>SamshamaniVati</i> 125mg 1 tab twice a day and <i>Anu tail nasya</i> drop in each nostril at morning after brushing for 7 days for runny nose.
05.02.23	Patient feeling well, No pain in abdomen or other body parts	Suggested <i>Laghu Pathya Ahar</i> such as <i>Parwal, Munga dal, Sahajan</i> , curry made with coconut oil or mustard oil. Indicated to avoid refined oil, packaged and junk food. advised proper sleep . It was advised from the first day of Ayurvedic intervention.
02.03.23	Asymptomatic	Same as above

Table No. 2 showing the status of the investigation done before and after the treatment

S.No.	Investigations	Before Treatment (on 21.10.2022)	After Treatment (on 07.01.2023)
1.	SGOT (AST)	36.67 IU/L	29.6 IU/L
2.	SGPT (ALT)	33.17 IU/L	13.3 IU/L
3.	WBC	10.90 x10 ⁶ /uL	5.4 x10 ⁶ /uL

4.	Neutrophil	69.0%	44.10%
5.	Lymphocyte	25.9%	47.10%
6.	Monocyte	0.9%	4.5%
7.	Eosinophil	3.8%	4%
8.	Basophil	0.4%	0.3%
9.	TRBC	4.11x10 ⁶ /uL	4.51 x10 ⁶ /uL
10.	HGB	11.3 g/dL	13.50 g/dL
11.	PLT	245 thou/mm ³	251 thou/mm ³
12.	HRSG	On 29.10.2022, a few scentimetric sized lymph nodes are seen in right iliac fossa. Few periportal and peripancreatic lymph nodes are seen measuring 17/9 mm and 20/8 mm.	On 02.01.2023 No remarkable abnormalities seen.

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