

Role of *Manibhadra Guda* in the Management of Nonspecific Mesenteric Lymphadenitis in Children: A Review

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Abstract: Mesenteric lymphadenopathy is a syndrome characterized by right lower quadrant pain secondary to an inflammatory condition of mesenteric lymph nodes, [1] Enlarged mesenteric lymph nodes are more common in males than female with incidence of 5 to 10 years and prevalence of 7%. [2] It is one among the leading cause for abdominal colic in children. The severity of the pain is variable with chronic duration. In *Ayurveda Manibhadra Guda* is one of the formulation explained in *Sahasrayoga* [3]. It contains *Vidangasara*, *Amalaka*, *Abhaya*, *Trivrut* and *Guda* acts as *Sula prashamana* and *Vatanulomana*. Thus made an attempt to explain the role of *Manibhadra Guda* in the management of nonspecific mesenteric lymphadenitis.

Keywords: Nonspecific mesenteric lymphadenitis, *Manibhadra Guda*.

1. Introduction

Mesenteric lymphadenitis is a common cause of abdominal colic in children. It is characterized by right lower quadrant pain secondary to an inflammatory condition of mesenteric lymph nodes. Mesenteric adenitis can be divided in two groups: nonspecific or (primary) and secondary. Primary mesenteric adenitis is a lymphadenopathy, mostly right sided, without an identifiable acute inflammatory process. Secondary mesenteric adenitis is associated with detectable intraabdominal inflammatory process. [4] Mesenteric lymph is likely more common than acute appendicitis in the first decade of life. It often follows or occurs in association with an upper respiratory illness, relevant symptoms and signs includes fever, abdominal pain, tenderness is maximal in right iliac fossa but is often present higher up towards the epigastrium.

2. Materials and Methods

The classical *Ayurvedic* textbooks like *Ashtanga Sangraha*, *Ashtanga Hridaya*, *Charaka Samhita*, *Sushruta Samhita*, and *Kashyapa Samhita*, *Shahasrayogam* etc. and modern textbooks along with journals, article and internet sources were referred for details on Mesenteric lymph adenitis, *Manibhadra Guda*.

3. Pathophysiology

Primary mesenteric adenitis is most common lymphadenopathy in the mesentery near the terminal ileum without a discoverable underlying cause for the inflammation [5]. Mesenteric adenitis also presents secondary to bacterial or viral gastroenteritis. The pathophysiology for such infection to occur takes place as follows: The bacterial vs virus is ingested orally and able to enter the body's bloodstream via invasion through the intestinal epithelium, the organism then localized to the nodal lymph tissue of the body surrounding intestinal mucosa; this commonly occurs in peyer's patches. From there, the organism can spread regionally through lymphatics pathways to mesenteric lymph nodes resulting in mesenteric adenitis.

4. Clinical Features of Mesenteric Lymphadenopathy

Mesenteric lymphadenitis typically occurs in children, adolescents, and young adults of both genders, although males might be slightly more frequently affected than females [6].

Mesenteric lymphadenitis is likely more common than acute appendicitis in the first decade of life. Acute appendicitis becomes more frequent in the second decade, whilst mesenteric lymphadenitis is distinctly uncommon after the age 20 years. It often follows or occurs in association with upper respiratory illness. Relevant symptoms and signs of mesenteric lymphadenitis include the following:

Fever ranges between 38 to 38.5 °C, vomiting, and shifts in stool frequency and consistency are frequently reported.

Pain is usually severe, but as a rule, the patient does not appear to be severely prostrated. The character of pain varies from a discomfort to a severe colic. The distribution of pain, likes that of appendicitis, is felt both in the periumbilical region and in the right iliac fossa.

Tenderness is maximal in the right iliac fossa but is often present higher up towards the epigastrium. The degree of tenderness is noticeably less in lymphadenitis than in appendicitis and the pressure of the hand will be tolerated by a child suffering from lymphadenitis in a manner not to be found

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in one with an inflamed appendix. The tenderness is also felt more deeply in lymphadenitis. In the latter, the area of pain tends to shift when the child is moved from side to side. Rebound tenderness is present also in about one-quarter of the patient with mesenteric lymphadenitis. True abdominal rigidity is usually absent.

Manibhadra Guda – It contains *Vidangasara*, *Amalaki*, *Abhaya*, *Trivruta* and *Guda* in the form of *Lehya* as internal medication.[7]

Vidanga: Botanical Name-*Embelia ribes* Burn.F [8]

Family- Myrsinaceae

Chemical constituents like fruits yielded Embelin, Quercitol, Tannin, an alkaloid Christermbine, Iodoembolin, Bromoembolin, embelic acid, Quercitol, fatty ingredients, volatile oil, Vilangin. *Vidanga is having Katu Kashaya Rasa, Laghu Ruksha Tikshna Guna, Usna Virya, Katu Vipaka Dravya*. Does *Krumigna, Deepana, Sulahara, Adhmanahara, Vibandahara, Visaghna, Ruchya, Kustaghna, Vatakaphahara, Rasayana*, acts as Anthelmintic, Antioxidant, Protective, Stimulant.

Amalaki- *Emblia officinalis* Gareth.[9]

Family- Euphorbiaceae

Chemical constituents-Tannin, Ascorbic acid, Ellagic acid, Phyllantine, Gallic acid, carbohydrates, protein, fat, calcium. *Amalaki is a Amlapradhana Lavanvarjita Pancharasa, Ruksha, Laghu, Sara Guna, Madhura Vipaka, Sheeta Virya, Tridosahara*. It does *Jwaragna, Dahahara, Chardigna, Shophagna*, acts as Antioxidant, Antiulcerogenic and Antimicrobial.

Haritaki- *Terminalia chebula* Retz.[10]

Family-Combretaceae.

Chemical constituents- Tannin, Chebulagic acid, Gallic acid, Sorbitol. It is having *Lavanavarjita pancharasa, Laghu, Ruksha Guna, Madhura Vipaka, Usna Virya*. It does *Anulomana, Shotahara, Sulahara, Chardigna, Deepana, Pachana, Vranahara, Jwaragna and Tridoshara*, acts as Antibacterial, Antispasmodic, Anthelmintic, Purgative and Cytoprotective.

Trivrut- *Operculina turpentine* Linn. [11]

Family-Convululaceae

Chemical constituents like Resin, Turpentine, Vallinic acid, Saponins. *Trivruta is having Katu Tikta Rasa, Laghu Ruksha Tikshna Guna, Katu Vipaka, Usna Virya, Virechana Prabhava*. It does *Rechana, Jwarahara, Shotahara, Udharaghna, Krumighna, Vranahara*, acts as Purgative, Anti-inflammatory, Antibacterial, Anthelmintic, Antipyretic and Spasmodic.

GUDA (Jaggery)-Light for digestion, does not obstruct *Srotas*, increases *Agni*, causes nourishment to the body, purifies blood and pacifies *Vata*[12].

Lehana- *Manibhadra Guda* is one of yoga in the form of *Avaleha*. Concept of *Lehana* is one of the unique concepts of *Kaumarbhritya*. Word meaning of *Lehana* is licking, usually *Lehya* or *Avalehas* are used by licking method. *Kashyapa Samhita Sutrastana* 18 chapter explains regarding *lehana* with special reference to child.

Usually, consistency of *Lehya* or *Avaleha* is semisolid or sticky. It is processed with honey, sugar and other substances to make it palatable; consistency of *Lehana* substance is thick as

it is processed with *Gudupaka* (Jaggery). Hence, *Lehana* may be such a procedure where nonpalatable high calorific substances which are essential for body growth and development are made palatable and administered [13].

5. Discussion

In *Ayurveda*, various diseases are explained in the text which are related to abdominal colic as major complaints. These diseases are *Gulma* (abdominal mass or lump), *Grahani* (irritable bowel syndrome), *Udara Roga* (Ascitis), *Tuni* (intestinal colic), *Pratituni* (renal colic), *Anaha* (Abdominal distension), etc. [14]

Among these diseases, the characteristics of *Gulma* Such a *Granthi Aneka Vidhana* (nodular presentation) and *Pindita Shavatishthite* (feeling of round mass) are very close to the characteristics of nonspecific mesenteric lymphadenopathy [15]. *Aniyat Vipul Vedanascha* (variability of abdominal pain, sometimes severe, sometime lesser) is symptoms of *Gulma* related to its *Vataja* type [16]. In the same way, *Acharya Vagbhata* has mentioned the characteristic of *Spharshopalabhya* (Feeling of something on palpation) for *Gulma*, which is related to the finding of tenderness on palpation examination. *Acharya Charaka* also mentioned the locations of abdominal pain related to the *Gulma*, which are *Hridaya* (near heart hypochondrial region), *Nabhi* (around Umbilical region), *Parshva* (below and along the sides of ribs the lumbar and iliac region), *Udar* (abdominal or epigastric region), and *Basti* (urinary bladder or hypogastric region) [17]. This shows that the location of pain is more diversified and shifting in nature; similarly modern concepts also specifies shifting of the tenderness location. Main root cause for the *Gulma* is *Vata dosha*, hence the yoga selected as treatment of *Gulma* is *Manibhadra Guda* acts based on its property and action. *Manibhadra Guda* Contains *Vidangasara, Amalaki, Haritaki, Trivrut, Guda*. *Vidanga* specifies the intestinal pathology by *Krimignatwa* and improves the immunity by its antioxidative property [17], elevates *Vatadosha* by its *Usna Virya*. Tannin present in the *Amalaka* acts as anti-ulcerative and cutaneous wound healing, [18] *Laghu Ruksha Sara Guna* helps to subsides the swelling, *Amla, Madhura Rasa* acts as *Vedanashamaka* (anticolic action). *Haritaki* specifies the *Granthi* (tumor or lump) in *Gulma* by its *Shothahara, Vatanulomana* and *Sulahara* property. Sorbitol chemical constituent present in the *Haritaki* it improves the intestinal motility and increase the appetite [19]. *Trivrut* contains Resin and Saponin acts as anti-inflammatory, antibacterial, Turpentine subsides pain and fever[20]. *Trivruta* is *Rechaka* by its *Prabhav* elevates *Vatapiitta dosha*. *Guda* is having *Kshara, Madhura Rasa* acts as *Shrotoshodaka* and *Pathya* and it makes *Yoga* palatable for children. *Manibhadra Guda* as *Yoga* it elevates the *Vatapiittadosh, Raktadusya*, regulates the intestinal motility and pacifies the pathology by its *Vedhana Shamaka* (Antecolic), *Krumigna* (Anthelmintic), *Vatanulomana* (Purgative) property and improves the immunity, by all this virtue acts on the nonspecific mesenteric lymphadenitis.

6. Conclusion

Enlarged mesenteric lymph nodes are more common in males than females, with the peak incidence 5 to 10 years. It commonly presents as pain abdomen of a chronic duration, in ayurveda the symptoms of this are very close to the *Gulma*, where the symptoms are more triggered by *Vatadosha*, *Raktasudhya* and *Vedhana*, hence, it can be conceptualized that non-specific mesenteric lymphadenopathy in children shows similarities in its clinical features and underlying pathology and can be well managed by the *Manibadra Guda*.

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