

AYURVEDIC APPROACH TOWARDS PAIN MANAGEMENT IN UDARASHOOLA W.S.R. TO INFANTILE COLIC – A REVIEW ARTICLE

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ABSTRACT

Pain is defined as an unpleasant sensory and emotional experience associated with actual or potential tissue damage. *Ayurveda* explains the origin of pain is due to vitiated *Vata dosha*. Hence in pain management, *Vata* has to be managed accordingly. *Udara Shoola* is a condition where one expresses high intensive pain in abdomen. *Udara Shoola* (colicky pain) seen in infancy occurs due to various causes, which are hypothesized but exact cause is not known, it is a self-limiting condition which affects infants of age 1 to 6 months. The most commonly encountered pain in infants is ‘infantile colic’ which makes the baby irritable and uncomfortable. It is encountered in the first few months of the baby’s life. *Stanya dushti* is one of the principle causative factors for disease development in an infant. Hence the mother should also be treated along with the infant. Till date many theories on the origin of infantile colic and its management are in vogue, yet there is no specific and established therapy to treat infantile colic. Hence this article explores the *Ayurvedic* management of *Udarashoola* i.e. infantile colic, based on clinical experiences and success stories.

Keywords: *Udarashoola, infantile colic, pain management*

INTRODUCTION

Children have the quality of ‘*Sukumaratva*’, ‘*Akleshahatva*’² i.e they have delicate bodies and lower pain threshold as compared to adults. Due to their developing systems, infants and children may be at greater risk than adults for protracted pain sensitivity. The majority of pediatric abdominal complaints are relatively benign but it is important to pick up on the cardinal signs. Excessive crying is the result of painful gut contractions caused by improper feeding technique, excess gas, allergy to cow’s milk, lactose intoler-

erance etc. It may also be a behavioural problem resulting from less than optimal parent-infant interaction, with difficult temperament of infant as a possible explanation for inadequate parental reaction. Also the excessive crying in a child with infantile colic could be regarded as merely the extreme end of normal crying, or it could be is just a collection of etiologically different entities that are not easy to discern clinically³. *Udarashoola* is considered to be the foremost complaint noticed in the infant, which is expressed by

incessant cry that disturbs the mother, care-takers and whole family. If not attended to, it can impact on poor weight gain poor quality of life in infants, thus the major issue to be focused on is proper management. Infantile abdominal colic, also known as baby colic is defined as episodes of crying for more than three hours a day for more than three days in any week for 3 weeks⁴. Colic begins at about 2 to 3 weeks of age and ends anywhere between 6 to 24 months of age. The new Rome IV criteria defines it as ‘recurrent and prolonged periods of infant crying, fussing or irritability reported by caregivers that occur without obvious cause and cannot be prevented or resolved’⁵. Irritable incessant cry is the primary diagnostic feature as infants are not able to express it in verbal or other form.

MANAGEMENT

Two arm treatment modality can be used for the management of infantile colic i.e.

1) External Management (*Bahya Chikitsa*) 2) Internal Management (*Abhyantara Chikitsa*)

1) External Treatment: External Management consists of 3 methods

- Burping
- Exercise
- *Abhyanga* (Baby Massage)
- *Swedana* (Sudation)

2) Internal Management: Internal management consists of 2 phases

- Treatment to the child
- Treatment to the mother/wet nurse

1) External Management:

- **Burping:** this method is done to help a baby let out air from the stomach especially by patting or rubbing the baby's back. A baby while feeding gulps air along with milk which causes bloating of the baby's abdomen and spasms in intestine. This causes pain; hence to relieve the pain, the accumulated air should be let out of the gut.
- **Exercise:** It is obvious that a baby cannot exercise by itself, hence the care-giver or doctor must perform exercise on the baby one of which is Modified *Pavanamuktasana*- The name comes from the Sanskrit words *Pavan* meaning "wind", *Mukta* meaning

relieve" and *asana* meaning "posture" or "seat".

- Prerequisites: baby should not be fed at least for half an hour before performing the procedure, Baby should be in supine position, on a flat firm surface
- Procedure: both the legs of the baby must be held straight at first and then flexed from the knee, in this flexed position the thighs should be pressed against the abdomen. This manoeuvre creates pressure on the abdomen which aids in releasing the accumulated air via the anal orifice which helps in alleviating the pain.
- ***Abhyanga* (Baby Massage):** Soft touch and pressure massage should be given to the infant especially on the abdomen and back with slightly heated oils⁷. *Vatahara* oils such as *Tila Taila*, *Sarshapa taila*, *Balashwagandhalakshadi taila*, *Eranda Taila* etc can be used.
- ***Swedana* (Sudation):** *Swedana* or Sudation can be performed on a baby in 3 methods i.e. *Hasta sweda*, *Pata sweda* and *Lepana*.

Hasta Sweda: this type of *Sweda* is specifically indicated in colic⁸

- Procedure: while performing this procedure first the hands must be heated by placing the open palms near smokeless flames of fire, *Vidhoomaagnyaushmana*⁹, in a setting with a radiant warmer the hands can be heated on the heat source of the radiant warmer and placed on the baby's abdomen. The procedure should be repeated for at least 5 times.

- ***Patasweda:*** *Swedana* is done with a heated cloth⁸
- Procedure: A thick cloth should be taken, heated and placed on the baby's abdomen for getting the *Sweda* effect.

- The heating can be done in 2 ways, by using:

- dry heat – cloth is kept on a hot dry surface
- wet heat – cloth is dipped in hot water or *Kashaya Lepana*(*Pradeha*): Fine powder of dry drugs with *Usna Veerya* such as *Hingu*, *Vacha*, *Rasna*, etc should be made into a fine sticky paste by mixing water or medicated decoction such as *Dashamoola Kashaya*, and a thick layer of this paste of about 2-3mm should be smeared on the baby's abdomen.

2) Internal Management:

- **Treatment to the baby:** Exclusive breast feeding is advised to the baby until 6 months of age, even *Ayurveda* has the same ideology and thus babies of 0-6months of age are called '*Ksheerapa*' (exclusively breast fed), hence one should be very careful when it comes to administering anything other than breast milk, even medicines.
 - a. Drugs with *Deepana*, *Pachana* and *Anuloma* effect are mainly chosen for internal administration in *Udarashoola*. Drugs like *Ajamoda*, *Shunthi*, *Jeeraka*, *Vacha*, *Shatapushpa*, *Hingu* are used in mainly *Arka* form. Other *Kalpanas* can also be used such as *Churna*, *Kalka*, *Avaleha*, *Kashaya*, *Phanta* and *Asavarishta*.
 - b. Drugs can also be administered by applying as a *Lepa* externally on the mother's nipple before suckling.
- **Treatment to the mother/ wet nurse:**

Treatment to the mother or wet nurse should only be given after an accurate diagnosis of infantile colic has been made. Similar mode of treatment has to be followed which was used as internal administration in the baby but in higher doses. *Draksharishta*, *Drakshadi kashaya*, *Jeerakarishtha*, *Dashamoolarishta* and *Haritaki Khanda* can be used with an aim of *Amapachana*, *Agnideepana*, *Vatanulomana*, *Stanyashodhana*. *Shatavari Lehya/ Guda* can be used for *Stanyavardhana/Janana* effect.

Some external treatments can also be given such as application of *Lepa* on the breast using drugs mentioned in *Stanyashodhana Dashemani*, *Shodhana* can also be opted but as a last option.

DISCUSSION

Vata is the main causative factor for pain in the body and the main seat of *Vata* is *Pakvashaya* i.e. intestines. Hence it is very important to understand the nature of *vata* to treat *udarashoola*

Dhatri chikitsa is a special concept of treatment in *Kaumarabhritya*. The mother or wet nurse is also treated along with the baby for obtaining better results. Hence in this case treatment to the mother is also necessary. As *Stanya* or breast milk is the sole

source of food and nutrition for the baby, if vitiated it may cause various adverse health conditions in the baby and it also may be the etiological factor for infantile colic.

Discussion on management:

The goal of management should be to use appropriate technique for systematic resolution of problem and to prevent secondary complication due to infantile colic. Developing an integrated, inter disciplinary intervention for cry-fuss problems in the first three to four months of life

Burping helps in expulsion of excess air in the stomach due to aerophagia during breast feeding. The excess air in the gut may be a causative factor for pain during hyper peristalsis. Expulsion of the air gives relief.

Same mechanism is applicable when the baby is exercised using *Pavanamuktasana*. Here the gas in the large intestine will be expelled through the anal route due to external pressure exerted by the manoeuvre. There will be reduction in bloating and as a result, decline in Intra-abdominal pressure thus reducing the pain.

Many studies have proved that Massage/*Abhyanga* is effective in reducing severity of colic symptoms. *Ayurveda* advises circular pattern of massage on the abdomen. This activates the solar plexus and it inhibits the impulses to the spinal cord via peripheral nerves. *Abhyanga* influences the emotional status also its efficacy can be enhanced by using certain medicated oils. *Mridu Samvahana* with light strokes can induce tranquillity. *Anuloma Gati* of the strokes also help in *Vatanulomana*. This may be the mechanism of pain relief in colic by *Abhyanga*.

Swedana in any form causes vasodilatation which increases arterial blood flow to and venous emptying from the area. If the pain is arising due to any local inflammation, the increased blood flow also brings nutrients, WBCs and antibodies to the effective area thereby relieving the pain to some extent. On the other hand the nerve impulses will also activate the descending pain suppression system which releases an endogenous opiate substance β endorphin or enkepha-

lin into the substantia gelatinosa at a spinal cord level. These substances inhibit the transmission in the nociceptive circuit synapses by blocking the release of the substance causing pain, thus relieving pain⁹.

In *Ayurvedic* classics there are several references of using cold infusion to reduce pain. *Alepa* is one of them. In human body there are several times more cold receptors than warm receptors. It has been showed that the rate of conduction of nerve fibers in a mixed peripheral nerve is reduced by cooling due to the *Shita* and *Sthira guna*. Cold application blocks the pain impulses as pain gate is closed for such impulses. Moreover the cold stimulation itself acts as a noxious stimulation to release β -endorphin and enkephalin for consequent reduction of pain. Drugs like *rasna*, *racha* are *vatahara* and also *vedanasthapaka* which help in reducing pain.

Internally *arka kalpana* is found to be effective in treating GIT disorders in infants. *Arkas* are distilled essences, which contain the volatile constituents of drugs used in the preparation in a medium of water. The stability of *arka kalpana* is comparatively more than *swarasa*, *kalka*, *kwatha*, *phanta*, *hima* and *churna*. Moreover *arka* possesses good palatability and more acceptance as it is given in small quantity.

Drugs having *deepana*, *pachana* and *anulomana* should be selected accordingly.

CONCLUSION

Udarashoola in infants or infantile colic is a benign self limiting disorder characterised by episodes of incessant crying 3 hours a day, for 3 days in a week, for 3 weeks in a month. Though being self limiting, pain management is necessary, since the incessant crying may be a cause of anxiety for the parents. It can be managed in two phases. First phase consists of external management which consists of burping, physical therapy, *abhyanga*, and *swedana*. Whereas, the second phase consists of internal administration of various formulations and drugs with *deepana*, *pachana* and *anuloma* effect to the baby as well as the mother. The above mentioned modes of management have yielded positive results in large number of patients and are currently in practice.

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