

**HOUSEHOLD FORMULATIONS IN AGNIDUSHTI JANYA VIKAR IN CHILDREN  
W.S.R PAEDIATRIC GASTRO-INTESTINAL DISORDERS-A STEP TOWARDS PUBLIC  
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**ABSTRACT**

**Paediatric Gastro-intestinal Disorders**, are now-a-days gaining clinical and social importance because of its being the principle cause of morbidity and mortality of children in the developing world.<sup>[2]</sup> In 1982, on the basis of a review of the active surveillance data from the studies conducted, in 1950's, 1960's and 1970's; it was estimated that, 4.6 million children suffered from Gastro-Intestinal disorders.<sup>[2,3]</sup> In 1992, a review stated that; in 1980, diarrhoeal mortality has declined to approximately 3.3 million annually. Both the reviews estimated that children in the developing world experienced between 2-3 episodes of GI Disorders. Thus there is a great need of looking into the causes and management of these GI Disorders in order to reduce its morbidity and mortality rates respectively. In Ayurveda, out of the major eight branches, *Kaumarbhritya* is one of the branch wherein basic concepts of child care commencing from the foetal period to early adulthood are precisely described. Inability of children to express themselves effectively and variations in most of the clinical presentations are the major issues suffered by the clinician in early diagnosis of children. Hence, a lot of children are deprived of proper and timely diagnosis. As stated above, Gastro-enteral disorders named as *Agni-Dushti Janya Vikaar* in Ayurveda are the most prone disorders in kids due to a number of reasons such as faulty dietary habits, worms, irregular diet, skipping meals and so on. Also, Ayurveda being the ancient Indian science of medicine and herbs, describes various classical fundamental (basic) herbs & formulations, almost some of them are used as kitchen ingredients (in forms of spices, condiments, household items, etc.) but are quite beneficial and capable to cure and prevent diseases at the primary level. Such Ayurvedic formulations in the form of household care are used to cure and prevent paediatric GI Disorders at the primary level. The whole-sole purpose of this article is to promote and provide the use of such feasible and natural home-based ayurvedic preparations in reducing the morbidity rates of paediatric GI Disorders, which will be definitely a promising step towards public health of children in the near future.

**KEYWORDS:** Paediatric GI Disorders, household based ayurvedic drugs, Public health.**INTRODUCTION**

Child is considered to be GOD's most innocent creature and is the most vulnerable population of the society. They are generally unable to express their problems and difficulties to their guardians and hence, are deprived of the proper treatment at proper time. Some disorders in children need treatment at the basic (primary) level and if not treated in given period may cause severe fatal damage. Hence, it is a matter of concern to know each and every paediatric disorder in detail and their managements at the initial stage in order to avoid emergencies and future damage.

One such common group of disorders in childhood age group are the disorders of the Gastro-Intestinal tract. GI tract is very delicate and easily prone to infections in

children. Many paediatric Gastro-enterologists have suggested that most common GI problems in children faced are mainly due to faulty dietary habits, changing lifestyle, pampering child, single child, spoon feeding and so on. Hence, special care of GI tract and its related infections should be taken in childhood age group.

The Functional disorders of the gastro-intestinal tract in children in the age group of 1- 10 yrs of age mainly include *Anorexia (Agnimandya)*, *Dairrhoea (Atisaar)*, *Constipation (Mala-baddhata)*, *Worminfestation/ Helminthiasis (Krumi)*, *Impaired digestion (Ajeerna)*, *Vomitting (Chardi)*, *Cholera (Visoochika)* and many more.

Out of the above stated gastric problems of children almost all the disorders are more or less related to

metabolic processes taking place in the tract. In short, metabolic dysfunction is the indirect cause of all paediatric gastric problems.

As per Ayurvedic view of digestion, the most important element of the body (*Deha*) required for almost all kinds of digestion is “*AGNI*”. *Agni* is responsible for bio-transformation of *Aahaar* into *sharir-Dhatus*. The main function of *Agni* is to breakdown or to disintegrate the food into their simplest possible components making it fit for absorption and utilization in the body.

However, In case of children; above stated certain **faulty dietary habits** and ill-eating practices do not allow the food to get well absorbed and utilized in the body eventually causing gastro-intestinal disorders. Thus there is a great need of looking into the causes and management of such GI disorders in order to reduce its morbidity and mortality rates respectively.

Ayurveda, being the ancient Indian science of medicine and herbs, **describes various classical fundamental (basic) herbs & formulations, almost some of them are used as kitchen ingredients** (in forms of spices, condiments, household items) but are quite beneficial and capable to cure and prevent diseases at the primary level. Such ayurvedic formulations in the form of daily used herbs can cure GI Disorders of children at the primary level.

The whole-sole purpose of this article is to promote and provide the use of such feasible and natural home-based Ayurvedic preparations in reducing the morbidity rates of paediatric GI Disorders, which will be definitely a **promising step towards public health** of children in the near future.

#### Need of the Review

- Now-a-days, faulty dietary habits, changing lifestyle, pampering child, single child, spoon feeding and many other ill habits eventually lead to the child get prone to Gastro-intestinal disorders.
- Hence, there is a keen need of ruling out the causes of such ill-practices by the paediatric age group and to find remedy against it.
- As per ayurveda, the above stated ill-eating habits in children are mainly due to the impaired/disfunctioning of *Agni*.
- However, Ayurveda has options in solving dysfunctioning by providing its beneficiary herbs in the form of daily used formulations to get rid of such Gastro-intestinal disturbances disorders at primary level.
- This review will be beneficial for the society in managing the problem of GI tract like Diarrhoea, colic pain, constipation, IBS at the household level.
- It will be a healthy approach towards public health of children as it is feasible, economical, easily available and most of all it will avoid emergency conditions.

- It will promote and provide promising step in prevention of Gastro-Intestinal Disorders at Mass level.
- At birth, the gastro-intestinal tract is sterile. The enteric flora are acquired during the newborn period and remain relatively stable throughout the life.
- The primary source of infection in the GI Tract of children below 1-2 yrs of age (breast feeding) is mainly the maternal vaginal and faecal floras that are usually ingested at the time of delivery,
- There may also be some environmental acquisitions, especially in infants born by the caesarian delivery, who do not have an opportunity to ingest maternal flora at delivery.
- In paediatric gastro-intestinal tract, once the bacterial flora have been established, it is fairly difficult to modify or change it permanently.

#### Concept of Agni in Ayurveda

*AGNI*: An important element of body that is, it is the *Poshak* of *Deha*, *Dhatu*, *Oja*, *Bala* and *Varna*. This *agni* digests the *Bahya-Aahaar* and then nourishes the whole body. If its work gets hampered by any reasons (may be external or internal factors), it leads to the formation of *Apakwa-Aahaar rasa* i.e eventually called as *Ama* (the undigested food matter) leading to numerous digestive hazards.

Especially in children with pre-school or school going age group, *Agni* plays a major role in digestion of all kinds of food items mentioned as *Ashita*, *Lidha*, *Pita* and *Khadita* as per the Ayurvedic *samhitas*.

#### Functions

*Agni* is responsible for all kinds of digestion taking place in our body. (*sthoor&sukshma*). It is responsible for the biotransformation of *Aahaar* into the *sharir dhatus*. It is the main element of strength, complexion, glow and anabolism (*upachaya*) in maintenance of paediatric health. The role of *agni* is not only limited to digestion but helps in *Sara-kitta Vibhajan* (i.e separation of excreta from the nutritious part of the diet).

The main function of *Agni* is to breakdown or to disintegrate the food into their simplest possible components making it fit for absorption and utilization by the body. Technically, these functions are digestion and metabolism.

#### Role of agni in paediatric health

Due to its **extra ordinary functions**, it is called as *JATHARO BHAGWAN* (i.e GOD) since ancient times. Since birth of the child, the **physiological power** within the body is in the form of metabolic power i.e *Agni*.

**Growth and development** of a child are solely responsible on the maintenance of the metabolic processes i.e regulation of *Agni* in Ayurveda.

As per the **different Vaya-awasthas** (age patterns) described by the *acharyas*, when a child shifts from one diet to another, metabolic process gets hampered leading to dysfunctioning of digestion. Here, *agni* plays a major role. If one has good *agni*, he can cope up with it however, the child with weak *agni* suffers from GI disorders.

Hence, there is an **inverse correlation between gastrointestinal disorders and Agni**.

If intensity of *Agni* reduces, it causes numerous gastric and digestive diseases and hence known as the root cause of all diseases especially in children. If it gets extinguished, the individual dies. Hence, for a **long and healthy life**, the very much important element is nothing but *Agni*.

Enlisted are some of the most commonly observed gastro-intestinal diseases suffered from paediatric age group which are directly or indirectly related to digestive dysfunctioning i.e *Visham* (impaired), *Atyadhik*(excessive) or *Heena*(low) *Agni*.

i] *Agnimandya* (Dyspepsia/impaired digestion)

#### Primary management Drugs used in *Agnimandya*.

Sr. no.	Drug name	Latin name	Form administered
1	<i>Shunthi/Adraka</i>	<i>Zinziberofficinale</i>	Dry powder
2	<i>Nimbuk</i>	<i>Citrus Acida</i>	Fresh extract
3	<i>Lavanga</i>	<i>Pushpakalika</i> (Calyx)	Whole fruit
4	<i>Amalaki</i>	<i>Emblicoefficialis</i>	Dry powder/ juice
5	<i>Hingu</i>	<i>AsaFoetida</i>	Dry powder
6	<i>Dadima</i>	<i>Punicagranatum</i>	Seed juice
7	<i>Saindhav</i>	Rock salt(eng)	Crystals

#### Formulations

1. Chewing *lavanga* fruit along with *saindhav* before meals.
2. *Adraka* juice with *saindhav* twice before meals.
3. *Takra* (buttermilk) can be prepared. Add *Hingu*, *Shunthi* And *Saindhav* in equal quantity simple buttermilk. Shake it well. It is a relishing appetizer for children.
4. Extract of *dadima* seeds (juice) must be taken in a bowl. Add 1-2 tsf of honey to it. Sprinkle *Amalaki* powder over it. A good beverage for anorexic children.
5. Semi-Solid mixture of *Adraka* (*adrakaavaleha*) cures *agnimandya* if taken regularly.

#### ii] *Krumi-Vikaar* (Worm Infestation)

Gastro-intestinal system of children is mostly prone to worms and this disease is the classical speciality of children between the age group of 3-5 years of age. Worms are nothing but acute infection in the gastro-intestinal tract of the child. It is one of the very common illness in children of both urban and rural population in the developing countries.

*Agnimandya* (ayurvedic aspect)

- According to the ayurvedic samhitas, decrease in the intensity of *agni* has been termed as “*Agnimandya*”.
- The reference of this disease can be found since *Mahabharat Adiparwa*.
- *Acharya charak* ,*sushrut* ,*Vagbhat* has not described the disease separately but in the course of other diseases.
- In children, faulty lifestyle, improper meal timings, pampering of the child etc. leads to imbalanced diet eventually causing the decrease in the intensity and power of *jatharagni*.
- *Agnimandya* leads to production of *Ama* (undigested food in the form of toxins) in the body. It results in adverse effect on the production of nutrients

#### Anorexia

- In modern terminology. *Agnimandya* can be correlated with Anorexia.
- Anorexia is decrease in the sensation of appatite or in short, loss of appatite.
- Most commonest disorder in children with faulty food habits and improper meal timings.

Usually worms are seen in the intestine but some may even cause systemic features and some times obstruction also. Common helminthes are nematodes (round worms) and ceastades (various tape worms), hook worms, whip worms etc. The condition can vary from asymptomatic carrier stage to intestinal and extra intestinal features.

As per Ayurveda, *Krumi* (worms) originates from the *Mala* (excreta), *Rakta*(blood) and *dushta Kapha* of an individual and then spread the infection all over the body through blood. Generally, found in the age group of 3-5 years of age.Excessive pampering, unhygienic dietary food habits etc. increases the percentage of *krumi* in children.

#### Causes

- Ingestion of uncooked or overcooked food
- Drinking infected water or eating infected food items
- Eating clay, wall paints, bricks etc.
- Walking Bare foot.

#### Clinical Features

- On and off spasmodic pain in the abdomen.

- Blood Stained Diarrhoea
- Abdominal cramps
- Bloating and flatulence.
- Loss of weight, fever and sometimes anaemia.

Sr. no.	Drug name	Latin name	Form administered
1	<i>Vidanga</i>	EmblicaRibes	Dry powder
2	<i>Jeerak</i>	Cuminumcyminum	Dry powder
3	<i>Ativisha</i>	Aconitum heterophyllum	Leaves( dried)
4	<i>Marich</i>	Pippernigrum	Dry powder
5	<i>Pippali</i>	Pipperlongum	Dry powder
6	<i>Kharjur</i>	Phoenix slyvestris	Leaves(freshjuice/ decoction)
7	<i>Jaggery</i>		Lump(small cubes)

### Formulations

1. Take 1-3 gm dry powder of *Vidanga* and add 1 teaspoonful of honey to it. The semi-sold mixture tastes sweet and is palatable. Recommend 3-4 times a day.
2. Extract of fresh leaves of *Kharjur*(*Kharjurpatrak*) is made and a tea-spoonful of honey is added to it. This sweet syrupy liquid is advised to take 3-4 times a day.
3. *Jeerak* is powdered by grinder/mixer and its fine powder is added to 1 glass of warm water. Use it instantaneously.
4. *Ativisha* (powder dried-200 mg) is added to honey and advised twice a day after meals.[especially for worms in children 3-5 yrs of age].
5. *Shunthi* powder + *Vidanga* powder (1 gm each) and jaggery is added to it.preparation is recommended once a day.

### iii]. *Atisaara* (Diarrhoea)

Diarrhoea, means passage of three or ore loose or watery motions per 24 hours., resulting in excessive loss of

fluids and electrolytes in stools. Secretory, osmotic or motility abnormalities in stools can be the reasons for diarrhoea in children. They may be singularly or in combination. All these forms the basic of all kinds of diarrhoea. Most common disorder of children. Children are quite prone to watery stools due to very delicate intestinal flora. One small infection in kids may lead to severe damage to the Gastro-intestinal bed leading to dehydration.

In Ayurveda, *Atisaara* is a broader concept which implies that, vitiated *doshas* of the body due to irregular bowels, impaired digestion, consumption of unhygienic food stuffs, oily-sweet and uncooked food leads to the decrease in the intensity of the *Jatharagni*(responsible for digestion)

These vitiated *doshas* (mainly *pitta* & *kapha*) eventually vitiates Vata leading to excessive and irregular amount of watery stools called as *Atisaara*.

### “*Bahu Dravamsaram Shleshma Atisaaram*”

Sr. no.	Drug Name	Latin Name	Form Administered
1	<i>Kutaja</i>	Halorrhoeaantidysentrica	Powder of seeds
2	<i>Musta</i>	Cyperusrotundus	Powder
3	<i>Bilva</i>	Aeglemarmoles	( <i>Phala Majja</i> )/Fruit Paste
4	<i>Jati-phala</i>	Myristica fragrans	Powder
5	<i>Karpoora</i>	Cinamanom camphora	Crystals
6	<i>Badara</i>	Zizophusjube	Fruit
7	<i>Dadima</i>	Punicagranatum	Seeds/ (Swaras)Juice

### Formulations

1. Take 2 gm dry powder of *Kutaj* and *Dadima*. Add dried seeds of *kutaj* to it. Now, grind the mixture and add 1 tsf of the mixture to 1 glass of buttermilk and take it twice a day.
2. Seeds of *Bilwa* + Cow's milk (1 cup) is taken. Drink it twice a day for atleast one month in case of bacterial diarrhoea.
3. *Bilwa* fruit is chopped into pieces and jaggery is added to it.
4. Bark of *Badara* is powdered, and *dadima* fruit powder is added to it. The mixture is taken 1 tsf for 2-3 times a day with honey.

5. 1 cup of goat's milk is taken and dried powder of *marich* is added to it in a tinch proportion. Twice a day is recommended for “Collitic diarrhoea”.

### iv] *Vibandh* (Constipation)

Constipation in Ayurveda due to *Apaan Vayu* defect is the basic disorder in kids leading to alost all kinds of other GI problems like IBS, Chronic GI infections, fissures, colitis etc. are the subsequent consequences of constipation. According to Ayurveda, following are the general types of drugs which are used as the primary source of treatment in *Vibandh* (*Malabaddhata*) in children of all age groups.(especially 1-3 yrs of age)

Sr. no.	Drug name	Latin name	Form administered
1	<i>Haritaki</i>	TerminaliaChebula	Juice/ dry powder
2	<i>Bibhitaka</i>	TerminaliaBelirica	Juice/ dry powder
3	<i>Aamalaki</i>	Emblicaofficinalis	Juice/ dry powder
4	<i>Trivrutta</i>	Operculinaterpentum	Fine powder
5	<i>Draksha</i>	Vitis vimifera	Fresh fruit/ dried fruit/ juice
6	<i>Saindhav</i>	Rock salt(eng)	Crystals

### Formulations

1. Powder of three herbs/*Triphala* (*Haritaki*, *Bibhitaka* & *Aamalaki*) is taken 1-2 gms and added to 1-2 cups of lukewarm water. The combination is useful in children of age 3-5 yrs.
2. Cow's *ghee* (melted- 2 tsf) added to warm water. 1 cup 2 times a day shows good effect.
3. *Trivrutta* powder (2 gm) + *Saindhav* salt 1 tinchful is added to it. the mixture should be taken at night before sleep.
4. Freshly prepared grape juice (1/2 to 1 glass) should be drunk at night for clearing bowels

### CONCLUSION

The above described household based ayurvedic formulations are easily available and easy to prepare instantaneously. Also, they enable the parents or guardians to manage the emergency conditions and to make the child stable. As per Ayurveda, the above stated ill-eating habits in children are mainly due to the impaired /disfunctioning of *Agni*.

However, Ayurveda has options in solving dysfunctioning by providing its beneficiary herbs in the form of daily used formulations to get rid of such GI disorders at primary level. Although, still it is necessary to consult their *Vaidyas* or physician for further management of the problem. These preparations go hand in hand with the specific drug of choice for the disease and are highly beneficial in defencing the disease at first stage.

This review will be beneficial for the society in managing the problem of GI tract like Diarrhoea, colic pain, constipation, IBS at the household level. It will be a healthy approach towards public health of children as it is feasible, economical, easily available and most of all it will avoid emergency conditions. It will promote and provide promising step in prevention of Gastro-Intestinal Disorders at Mass level.

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