AN OVERVIEW ON NIDANA PANCHAKA OF ATISARA (DIARRHEA)
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ABSTRACT
Atisara (diarrhea) is quite a common problem of the present era, due to irregular and unhealthy habits relating to ahara and vihara, which leads to sarira and manavaigunyata (physical as well as psychological involvement). Although Atisara (diarrhea) is rarely dangerous, it can be recurrent and cause agony in life. The incidence of Atisara (diarrhea) is increasing day by day due to the influence of western food habits, inappropriate diet regimen and mental stress. Nidanapanchaka with emphasis on Samprapti of Atisara (diarrhea) as described in Ayurvedic literature is discussed here. By understanding the Nidanapanchaka with in-depth understanding of samprapti helps in planning specific preventive measures and management.

Keywords: Atisara, Manavaigunyata, Nidanapanchaka, Samprapti.

INTRODUCTION
Atisara (diarrhea) is most commonly encountered disease in clinical practice. Among inexhaustible list of gastrointestinal tract diseases, Atisara (diarrhea) finds a place as important disease in individual’s life as everyone suffers from it at-least once in his life time. Most important factor in the pathogenesis of Atisara (diarrhea) is mandagni. Mandagni is root cause of amadosha and it is the crucial factor for manifestation of most of the diseases including Atisara (diarrhea). Amadosha results due to agnidushti caused by mithyaaharavihara, ultimately manifesting as Atisara (diarrhea). Thus faulty diet habits play an important role in causation of Atisara (diarrhea) and its treatment comprises suggestion to follow proper aharavidhi vidhana. Human digestive system is very sensitive system and responds to functions of the body and emotions. Hence, rightly the abdomen is called 'the sounding board of the emotions'. It is quite interesting to note a mythological story behind origin of Atisara (diarrhea). It is noteworthy that initially, animals were not sacrificed in yajna. But later on, king Prishadhra conducted yajna and animals were utilized for yajnabali. As there was a great need of animals even cows are said to be used for yajnyabali. After sacrificing the cows, the beef was eaten by the people. Due to guru, ushnaguna of cow’s meat, they developed impairment in agnibala. Hence the disease Atisara (diarrhea) manifested for the first time after king Prishadhra’s yajnya.¹ Atisara (diarrhea) comprises of two words ati and saranam. Ati means excess and saranam is gati or flow. Therefore Atisara (diarrhea) is a condition where watery stools are passed in excess, several times a day, through gudā. Atisara (diarrhea) is dealt in detail in brihatryee and laghutrayee. A vivid explanation regarding nidana, clinical features and type of Atisara (diarrhea) is found,
but with respect to samprapti no direct complete explanation is available in classics. Brihatrayees enumerate types of Atisara (diarrhea) as six. Acharya Charaka, Vagbhatta and Sushruta mentioned 6 types of Atisara (diarrhea) (vataja, pittaJa, kaphaja, sannipataja, bhayaja, shokaja) but Acharya Sushruta has mentioned amaja type of Atisara (diarrhea) instead of bhayaja variety. Madhava nidana and Sarangadhara followed version of Sushruta along with addition of one more type each as raktaja and bhayaja respectively accounting to seven types. Bhaishajyaratnavali enumerates eight types with addition of jvaraja type. Further Bhavaprakasha classified Atisara(diarrhea) based on avastha as amavastha, pakwavastha and raktavastha. Hareetasamhitaka mentions only one type as jvara atisara. Acharya Charaka mentioned 36 types of Atisara (diarrhea) in sidhisthana.3

Nidanam

Nidanas of Atisara(diarrhea) can be identified under four broad headings as viz. Aharaja, viharaja, manasika and agantu nidanas. These may act as viprakrusta nidana (distant causes) or sannikrishta nidana (immediate causes) or both. Nidana can be further divided as samanya nidana and visesha nidana. Samanya nidana are common set of nidana, which leads to the dushti of dosha and in turn produces samanyasamprapti. Viseshanidana causes the dushti of particular dosha and produces the disease accordingly. Samanya nidana comprises the unwholesome diet and deeds such as excessive consumption of food, food article which is incompatible and not suitable for an individual and helminthes (pureeshajakrimi). Mind also plays equally important role in causing Atisara (diarrhea). Visesha nidana take account of the nidana of each type of Atisara (diarrhea). Acharya Charaka has explained the factors for the individual doshic vitiation causing individual doshic types of the disease. Whereas others have given a general group of causative factors of which one or more may be applicable for individual patients. Sushruta in Uttarasthana mentions guru(heavy), snigdha (unctuous), ruksha(dry), ushna (hot), drava (liquid), sthoola, sheeta padartha sevanana, sanyoga viruddha, samskara viruddha aharasevana, adyasana (eating before the digestion of previous meal), ajeeerna, asathmyabhojana, increased snehapanana, bhaya (fear), visha (use of poison), shoka (grief), dushtambupaana, madyapana, rithua saathmya (change of season of physical contrarieties), moving in water, vegavarodha, krimi and arshas. Dalhana comments guru as, guru in matra (quantity),guna (quality) and vipaka. In this context Madhukosha comments guru as matra guru and swabhava guru indicating intake of large quantity of food or even though the quantity is less the food possess excessive guru gunas like maSha etc. Virudha is commented by Madhukosha assamyoga, desha, kala, maatraadhi viruddha, which includes koshta, avastha, karma, samskara, agni, saathmya, paakavidhiruddha, pariharopachara- viruddha, hruddhiviruddha and sampddhiviruddha. Madhukosha accepts view of Charaka on adhyashana and defines it as intake of another meal before the last consumed meal is digested. Madhukosha favours view of Sushruta on nidanaavishamaashana, as eating large quantities in short period of time. Madhukosha identifies Krimi as one of the nidana and explains that ingested krimi5 in pakwashaya and vitiates the same along with the Dosha. Krimi plays a role of doshahetu aswell as vyadhi-
hetu. Apart from above nidana Vagbhata opines that consumption of sushka or rukshamamsa,mamsa derived from lean animals or preparations of tila or germinating seeds, Krimi and Arshas\(^6\) are responsible in causation of Atisara (diarrhea).

**Samprapti**

Involvement of vatapravadhanatridosha dusti can be figured out in Samanya samprapti of Atisara (diarrhea) leading to agnimandya and ajjeerana which in turn causes dushti of koshta and pakwamashaya. As a result apdhatu attains vimargagamana from different part of the body to koshta, leading to increase in dravata of pureesh in pakwasaya manifesting as Atisara(diarrhea). Visesha samprapti includes pathogenesis of each type of Atisara (diarrhea). In vataja Atisara (diarrhea), vatavridhi (increase of vata) occurs due to nidanasevana (indulging in causative factors),which in turn leads to agninasha (impairment of digestive fire). This aggravated vayu brings down mutra (urine) and sweda (sweat) forcefully,causing liquefaction of mala resulting in Atisara(diarrhea).Whereas in pitta Atisara, increased drava(liquid)guna of pitta is responsible for agninasha and ushna (heat) guna causes pureeshabhed(diarrhea). In kaphajja Atisara(diarrhea) due to nidanasevana; guru, madhura,sheetna, snigdhaguna of kapha increases and gets collected in amashaya leading to agninasha and saumya nature results in manifestation of loose stools. According to Charaka both bhayaja and shokaja Atisara are caused due to manasikadosha and share same clinical feature of vataja Atisara. According to both vagbhatta, vatapatita samalakshana is seen in bhayaja Atisara. In amajaatisara the pathology is more dominant in the pittradharakala rather than the pureeshadharakala. In pakwajatisara, the pathology is more dominant in pureeshadharakala, ie, in pakwasaya than pittadharakala. Passage of drava stools is invariably seen in Atisara (diarrhea) and reasons for this includes vatavridhi in koshta, increase of dravaguna and decrease of ushnaguna of pitta, vishishdadushi of preeyoshaasrotas, agnimandya and amavisha. By analysing above factors, samprapti of Atisara (diarrhea) can be summarized as - the etiological factors causeagninasha resulting in disturbance and dushti of apdhatu, mixes with pureesha, it is driven downwards by samana and apanavata,which inturn leads to expulsion of most water mixed stools through guda.

Analysis of Samprapti ghatakas of Atisara (diarrhea) reveals invariably vata involvement as pradhanadosha. Impairment of malapravriti points out apanavatadusti and agnimandya indicates Samanavatadusti. Hence disease is resulted due to dusti of samanavata, kledakakapha and apanavata. Pachakapitta also plays a major role. Due to vikriti in pachakapitta there is agnimandya and ama prior to the manifestation of the disease. The agnimandya causes ama, which is similar to kapha in its gunas. Thus kapha i.e., kledakakapha is vitiated. In Atisara (diarrhea) the dushyas are udakakyaadhatu(kaya drava)\(^7\).Ama resulted by jatharagnimandya causes srotorodha and leads to manifestation of Atisara(diarrhea). The pradhanasrotas that gets vitiated in case of Atisara (diarrhea) is preeyosha Srotas. Atipravriti, of mala through gudamarga is resulted. The place of origin of the disease (udbha-vasthana) is amashaya. The prakupita vata along with other dosha moves through koshtha and the adhistana is pakhwashaya. Guda is vyaktashtana and abhyantararogamarga involved.
**Purvarupa**

The premonitory symptoms are known as *Purvarupa*. In this stage, a rough idea regarding future disease can be identified, which helps to prevent the disease. *Charaka* has not mentioned *purvarupa* of *Atisara* (diarrhea). However, According to *Sushruta* before the advent of *Atisara* (diarrhea), the premonitory symptoms are *toda in hridaya, nabhi, payu, udara, kukshi* (piercing pain in the region of heart, umbilicus, rectum and abdomen), *anilasannirodha* (non-elimination of flatus), *vitsanga* (constipation) *adhmana* and *avipaka* (abdominal distension and indigestion). *Madhavakara* and *Bhavaprakasha* have endorsed the same *lakshanas* put forth by *Sushruta*.

**Rupa**

All the signs and symptoms of the disease become clearly evident in *roopavastha*. According to *Charaka* 6 main types of it can be identified and specific symptoms are attributed to each variety.

The symptoms of *vatajaatisara* can be obtainable under two headings *ama atisara* and *pakwaAtisara*. *Amaja* variety has the following symptoms: stools are *vij-jala* (slimy), *vipulta/prasaranasheela* (spreading nature), *avasadi* (that contains undigested matter, that are sinking when put in to water/leenam (gets absorbed when fall on ground) *ruksha* (dry), *drava* (liquid), *sashula* (attended with pain), *amagandha* (smelling like putrid flesh) *sashabdam/asabdam* (with or without making sound) *vibadhavata, mutra* (retention of urine and flatus)*vata* lodged in alimentary tract, getting obstructed moves obliquely making gurgling sounds and colicky pain. In *pakwa* stage *vibadha, alpalapam*, (passing of hard stool little by little), *sashabdam, sashoolaa* (along with sound and colicky pain), *phena, picha* (frothy and slimy), *parikarthika* (gripping pain), *romaharsha* (horripilation), associated with *swasa* (difficulty in breathing) and *sushkamukha* (dryness of mouth). There will be pain in *kati, uru, trika, janu, prishta, parswa* (waist, thigh, hips, knees, back and sides). This type of *Atisara* (diarrhea) is also called as *Anugrathitha atisara*.10

The specific features of the *Pitta* origin type are that the stool is *haridra* (yellowish) *haritha* (greenish), *nila* (blue), *Krishna* (blackish) tinged with blood and *pitta, atidurgandha* (very offensive), is accompanied by *trishna* (thirst), *daha* (burning), *sweda* (perspiration) *murcha* (fainting) *shola* (colic) *santapa, paka* (suppression and inflammation of the affected organs).

In the *kapha* origin type of the disease the stool becomes *snigda* (unctuous), *swetha* (whitish), *pichila* (slimy). *Tantumat* (contain fibrinous shreds and undigested matter). *Guru* (heavy), *durgandha* (offensive) loose and constant, *sleshomapahita* (gets mixed with the lump of mucus), *anubandhashoolla, alpalpa, abhishana* (scanty stools accompanied with pain, *guruudara, guda, basti, vakhsha* (heaviness in the abdomen, rectum, hypogastric and inguinal region, *kriteapikrutzasamjata* (sense of incomplete evacuation), *romaharsha* (horripilation), *utklesa* (nausea, *nidra* (drowsiness), *alasya* (lethargy), *sadana* (asthenia), *annadweshi* (dislike for food). The symptoms which mark a case of *tridoshaja* type is due to the combined action of the three simultaneously deranged bodily *doshas*, resembles *varahasnehamamsaambu* (fatty stools). A case of *tridoshaja* type, if attended with all the symptoms, is very hard to cure and if occurring in an infant, or an old person, is scarce-
ly amenable to medical treatment. The suppressed tears of a grieving person of sparing diet, on quenching the digestive fire, reach down into the koshta (intestines) and there freely mix with, and causes dushti of blood which becomes dark red like kakananti (Gunja). It then passes through the rectum expelled out with or without feces. The doshas in the koshta (abdomen) are aggravated and deranged when they come in contact with the Ama (undigested) and are brought down into the koshta, where they are more disturbed and emitted in combination with the undigested fecal matter in various ways, and are followed with pain and characterized by a variety of color.

**Upadrava**

The upadravas of Atisara (diarrhea) as mentioned by different authors are compiled as trishna (thirst), daha (burning sensation), swasa (difficulty in breathing), bhrama (giddiness), hikka (hiccup), jwara (fever), sopha (swelling), ruja (pain), kasa (cough), aruchi (tastelessness), pravahika (mucous diarrhea), parikartika (gripped pain in rectum), murcha (fainting). Most of the upadravas are well indicative of severe stage of dehydration.

Before it passes into the incurable stage, the physician by investigating the etiological factors, signs and the morbidity of humours should begin the treatment of the most predominant morbid humour in the condition.

**Pareeksha**

Pareeksha mainly include srotopareeksha and malapareeksha. The dominant srotas involved in Atisara (diarrhea) is pureeshavahasrotas. Pureeshavahasrotodushhti nidana comprises of vegadharana(holding the urge of defecation), atyashana(over eating), ajeerna(due to indigestion), adhyashana, durbalagni (due to weak digestive power), krisha(due to leanness of the body). Purishavaha Srotodushhti lakshana are kri-chrenaalpalpam, sasabda, sashoolam, athidravam, athigrathitham, atibahu.11

**Mala pareeksha:** Diagnosis of this disease is mainly based on signs and symptoms and examination of stool ie, mala pareeksha. This plays a vital role in detecting abnormal constituents such as ama, rakta, kapha, krimi and pooya etc. in stool, assists in differentiating ama mala and pakwa mala. According to Chakradatta and ashtanga sangraha, pureesha are in sama avastha, if it sinks in water whereas nirama if floats on water except in condition of excess liquidity, compactness, coldness and presence of mucus. The ama stool has foul smell with painful flatulence, distressing constipation and abnormal salivation. Nirama mala will be free from these associated symptoms. Signs and symptoms of Atisara can be elicited in depth by trividha pareeksha of vagbhatta and shadvidha pareeksha of Sushruta. Lakshanas like vipluta (slimy), avasadi (that contains undigested matter, that sink when put in water/leenam (gets absorbed- fall on ground), ruksha (dry), drava (watery), phena (frothy), sleshmopahita (with mucus) and the colours haridra (yellowish), haritha (green), neela (blue), krishna (black), swetha (white) are perceived by darshanapareesha/ chakshurindriya pareeksha. Pichila (slimy), snigda (unctuous), tantuma t(contain fibrinous shreds and undigested matter) lakshanas can be assessed by sparshana/sparshanendriya pareeksha. Through prasnapareeksha various symptoms like shola (colicky), vibandha (constipation), obstruction of vata (flatus), mutra (urine), kriteapikrutasamja (sense of incomplete evacuation), trishna (thirst), dha(burning sensation), murcha (fainting),
sweda (perspiration), utklesha (nausea), nidra (drowsiness), alasya (lethargy), annadwesha (dislike for food) can be obtained. Various shabdha associated with mala pravruti can be heard through shrothrendriyapareesha.

Pathyapathyaha:
Pathyapathyaha or upashaya-anupashaya of Atisara is considerably dealt in Ayurveda. In kasyapa Samhita fruits, cereals, hot water are considered as pathya and apathy include intake of lashuna(garlic), unctuous substance, meat soup and sudation. Yogaratnakara12 has given elaborate explanation on regard of pathya apathy, important pathya are nidra, langana, milk of goat and cow, ghrita, butter extracted from cow or goat milk, curd, buttermilk prepared out of cow or goat. Apathyas include waking during night, heavy foods and drinks.

Sadhyasadhyataa:
Atisara (diarrhea) is said to be kri-chrasaadya when it is devoid of any complications and dhatudushti. It is said to be asaadhya in bala, vridha ,when many upadravas are present and in a young man who has atidhatudushti. Charakauktaa saadyalakshana of sannipaatajwara is similar to the Shushrutotka asaadyalakshna of Atisara (diarrhea).

Atisara (diarrhea) nivruthilakshana:
Patient relieved of Atisara (diarrhea) passes urine and flatus independently of mala along with deepthaagni and laghutwa (lightness of abdomen).13

CONCLUSION
Indulgence in hetu leads to Samsamyapam dhathuragni14 and this is the primary step involved in this disease. Pakta cha upahan-yate points out agni mandya plays a pivotal role resulted due to vikruthi of samanavata, pachakapitta, kledakakapha and pur-reeshavahasrotas. Among dusthetus of purisavaha srotassandharana, adhyasana, ajirnasana, atyasana, durbalagni, most of the hetus are related with ahara and ahara-vidhividhana. Prakupitavata in aqinman-dyavaastha brings kaya drava’s esziallymutra and sweda to pakwasaya by asayaapakarshakaswabava and causes dra-veebhuta of pureesha leading toAtisara (diarrhea)15. The loss of kaya drava (fluid and electrolytes) produces dehydration, the severity of which depends upon the frequency of diarrhea and the amount of loss. Although there is no separate mention about dehydration, but symptoms like trishna, sosha, su-shkasya, saktamootra etc suggest symptoms of dehydration. The concept of microorganisms causing Atisara (diarrhea) was an age old known factor. Some of the abhyanta-rakrimi (intestinal parasites) are mentioned as sookshma depicting microorganisms. Charakacharya has mentioned individual separate doshaja samprapti for different types of Atisara (diarrhea). Mandagni is the most important factor in causation of Atisara (diarrhea). Therefore drugs used for treatment should act directly or indirectly on agni. If Atisara (diarrhea) roga is not treated properly, agni gets further hampered and this leads to Grahaniroga. The disease Atisara is said to be ghora, daruna and dhatushoshi. Management should primarily aim at Nidana Parivarjana in Atisara by avoiding agnivaigunyakara hetus and apanavaigunyakara hetus.

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