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# AN AYURVEDIC REVIEW OF STOOL EXAMINATION (PURISHA PARISKHAN)

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## **ABSTRACT**

Examination play an important role in diagnosis and prognosis of diseases. It is also included in *Ashtasthana Pariksha*. The factors which are described under *Ashtasthana Pariksha* indicate that these are the body parts or metabolic products, where there will be changes when a person suffers from diseases. Observing these changes, the diagnosis can be made, or these can help as tools in diagnosing a disease. The changes pertaining to *Purisha* (stool) have been described under various disease conditions in *Brihattrayi* but are scattered. Hence, a study is aimed to compile all such scattered data related to changes in stool in various disease conditions by following the scheme of *Sushruta's Shadvidha Pariksha* (6-fold examination). This will

provide the first-hand information about the changes in stool and will act as a guide to diagnose the disease. *Jala Nimajjana Purisha Pariksha* is also another tool through which the status of Agni and the presence of Ama can be detected.

**KEYWORDS:** *Agni, Ama, Jala Nimajjana, Mala, Purisha Pariksha*, stool examination, diagnosis, prognosis.

# **INTRODUCTION**

In *Ayurveda*, *Dosha-Dhatu-Mala* concept is important to understand the body functions. Malas are the metabolic end products those are to be excreted. *Malas* are divided into two major parts that is *Sharirika Mala* (Body wastes) and *Dhatu Mala* (Metabolic wastes). *Sharirika Mala* is further classified into three parts that *is Mutra* (Urine), *Purisha* (Stool), and

Sweda (Sweat); Dhatu Mala are further classified into seven types. [1] Purisha comes under Sharirika Mala. Both Purisha and Mutra are formed from the food. [2] After digestion, the Sarabhaga (Nutrient portion) gets absorbed and and remaining undigested part becomes solid and that is called as Purisha. If Malas are not excreted from the body, the metabolic process will be impaired and this will ultimately lead to the formation of malformed tissues and diseases. Purisha Pariksha (stool examination) is included in Ashtasthana Pariksha. [3] In Ayurvedic texts, examination of stool is limited mainly up to the examination of physical characteristics such as colour, quantity, odour, froth, and consistency. Besides these, a specialized technique of stool examination, i.e., Jala Nimajjana Purisha Pariksha has been described to detect the presence of Ama thereby inferring the status of Agni in the body. [4-6]

All the three classics of *Brihattrayi* were studied thoroughly, and the descriptions pertaining to *Purisha* were collected systematically. These observations were critically analyzed and grouped under specific headings under the scheme of *Shadvidha Pariksha* (6-fold examination) *of Sushruta* to provide the first-hand information about the diagnosis of diseases.<sup>[7]</sup>

#### AIMS AND OBECTIVES

To elaborate the literary review of stool examination from various ayurvedic text.

# **MATERIAL AND METHOD**

References and data about stool (*purisha*) are collected from various *Ayurvedic* text from *Brihattrayi*, *yogratnakar* other journal and relevant article, scientific review papers and previous work done in related to stool along with details of contemporary science on the topic was reviewed and relevant information was collected

## Characteristics of normal purisha

Characteristics of normal stool in terms of physical characteristics such as *Gandha* (odour), *Sparsha* (touch), *Varna* (colour), and *Vaishadya* (unstickiness/clear) are not described separately in the ancient and medieval period texts of Ayurveda, but stool examination has been given due importance in context of the diseases. Only *Pramana* (quantity) of *Purisha* has been described by *Acharya Charaka* as Sapta Anjali Pramana.<sup>[8]</sup>

Concept of purisha

**निरुक्ति** - पुरिष - प्रू (pru)

The word *purisha* is derived pru dhatu malinikarnat

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पर्याय

Avaskara-feces, Uchchara-feces, kitta-excretion, dirt, Gu-going (out from body), Gutha-feces, purisha, Purishana-feces, dirt, excrement, varchas, Varchaska-excrement, feces, Vishthha-

voiding, excrement.

Meanings of all above paryaya indicate malinabhava or tyajyatva of purisha.

Formation of purisha

Purisha is the final excreta which is eliminable from the body after all the digestion, metabolism from the body after the digestion, metabolism process which is unable to transport into the circulating bio matter. In Ayurveda two specific and different channels or srotasa are defined in one common alimentary canal. With overall study of this grand srotasa i.e. alimentary canal in contemporary view performs multiphase digestion and metabolism commences from buccal cavity and terminates till rectum. The concept of pakvasaya is very specific in Ayurveda that does not deal with any small or large organ but largely resembles

with large intestine.

After two phase digestion of kapha in madhura avasthapak, pitta in amla avasthapak, the third and major metabolism of vata takes place in this portion. pakva- annarasa after a residual process of kapha and pitta formation enters into pakvashaya for expecting and analysing the rasa and mala with the help of samanvayu after the process of villous absorption of source bio matter ,the remaining unabsorbed fluids and solid waste called aharmala is comprised of Muttra and purisha. Major fluids extracted as not useful waste matter coming out from mala dharan kala and form the urine for further filtration to respective organs. After extraction of liquid *paripindita* or solidified waste matter residue is called purisa but pakvasaya is the seat of third avasthapak i.e katu avasthapak and katu bhava of this bio substance produce poshak vata. This purisha has a specific organ i.e purisasaya or rectum to stay.

Utpatti of purisha

After the in taking of food the digestion of the food place with the help of jatharangi and panchabhutagni and that digested food is divided into two parts i.e kitta bhaga and sara bhag again kitta bhaga is having two parts i.e Drava bhaga is called as mutra Ghana bhaga is called as *purisha* or *shakrut*. According to *charaka*: When the part of the food enters into the *pakwasahya* then it will become dry due to the presence of *Agni* and attain *pindaswarupa*. During this process due to *katu rasa* the *vriddi of vayu* takes place. *paripindit pakwasya* means, during the process of formation of *mala or purish*, the remaining food material which is waste will gate the *pind roop* and thus the *purisha utapatti* will occur.

## Purish kriya

*Purish* does the *dharana of shareera* also bears the *vayu* and *agni*. This are the two main constituents of *prana*. As the strength of an individual is under of *shukra* is the same way the life of an individual is under control of *mala*.

# Panchbhoutic swroop of purisha

*Purish* contains predominantly 2 of 5 basic elements namely *prithivi* and *vayu*.its color is yellow and it is due to bile pigments (i.e. *pitta*) present in stool. It is slightly pungent in taste and has natural bad smell. It is having *ghana Swaroop*.

#### Purisha karma

Avasthambha is function of purisha.avashtambha means shariradharan.purisha performs this karma till it is present in sharir.so properly formed purisha gives strength to body. Acharya sushruta has quoted that purisha performs vayu and agni dharan i.e purisha gives strength to vayu and agni.

## **Excretion of** *purisha*

After performing its *dharana* function, *purisha* get excreted out of body under the influence of *Apana vata*.

# Site of formation of purisha

Colon (*Purishvaha srotas*) is a site of formation and excretion of stool. Large intestine (*Pakvashaya*) and anal canal (*Sthula guda*) are root of colon.

# Purishavega

Urge of defecation is called *purishavega*. Veg is natural urge of body like hunger, thirst, micturition, defecation etc. psychological feeling are also considered as *vega*. Urges related to *sharira* are called *sharirika vega*. This are called as *adharaniya vega* because these are not supposed to be hold urges related to mind are considered as *manas* vega. These are called as

dharaniya vega because these are supposed to be hold. Purisha vega comes under adharaniya vega.

# Purishavega dharanjanya lakshana

According to charkacharya, purishvegadharan causes pakwashaya shula, shira shula (headache), adhovata and purish apravartana (no passage of flatus and stool), pindikoveshtana (pain in calf region) and Adhmana.

According to sushrutacharya, purishvegadharana causes Atopa, shula, parikartana (cutting type of pain in guda, basti), purisha Sanga (no passage of stool), Urdhvavata (frequent of belching), purisha Pravrutti from mukha.

# Importance of purisha parikshan

Purisha Pariksha as such gives information about so many physiological and pathological states of the body as listed below

Status of *Agni* (digestive fire)

Symptoms of abnormal *Doshas* (body humors)

Diagnosis of disease

Prognosis of diseases Presence of parasites.<sup>[9]</sup>

Presence of food toxin (ama)

Determine the remaining life span (arista lakshana)

#### Method of examination

There are two methods of *Purisha Pariksha* described in *Ayurveda*:

- 1. Physical examination of stool
- 2. Jala Nimajjana Purisha Pariksha to detect the presence of Ama.

# Physical examination of stool

A great detail regarding the changes in physical characteristics of stool has been described under various diseases in *Brihattrayi*.

# Chakshusha pariksha (Inspection)

Through Chakshusha Pariksha, one can assess color, consistency, presence of froth, abnormal constituents, etc.

#### **Examination of color**

The *Pitta Dosha* according to *Ayurveda* is responsible for the production of colors. *Tridoshas* also play an important role in affecting the color of stool as well as other parts of body. Vitiation of *Doshas* causes changes in different color. Some of the changes in color of *Purisha* is the characteristic features of several diseases [Table 1].

Table 1: Change in colour of stool in various disease.

Types of color	Diseases involved	
Krishna Varna (Black	Vatika Arsha, Vatika Gulma, Kumbha Kamala, Paittaka	
color)	Atisara, and Vata Prakopa	
Shyava, Aruna Varna	Vatika Udara Roga, Vatika Arsha, Vatika Atisara, Vata	
(Gray and Reddish color)	Prakopa, Vataja Gulma, Vataja Jvara, and Vataja Pandu	
	Shukla Varna (white color) Shlesmika Jwara, Shlesmika	
	Udararoga, Shlesmika Arsha, Shlesmika Pandu, Shakhashrita	
	Kamala, Shlesmika Atisara, Sahaja Arsha, Jalodara, Kaphaja	
	Gulma, and Kaphaja Visarpa	
Rakta Varna (Red color)	Kamala, Pittaja Atisara, Raktapitta, Sahaja Arsha, Chhidrodara	

#### Presence of froth

Presence of froth in stool according to *Ayurveda* is due to *Vata Dosha*. The froth in stool is observed in different pathological states and diseases, which are *Vata* predominant [Table 2].

Table 2: Presence of froth in stool in different pathological conditions/diseases.

Froth	Diseases involved
Presence of froth	Vataja Arsha, Vatika Atisara, Vataja Grahani

# Changes in consistency

The consistency of the stool in terms of *Sandra* (dense), *Baddha/Vibaddha* (solid), *Drava* (watery), *Bhinna* (looseness), and *Shushka* (dryness) is observed in various types of disease conditions. The consistency *Sandra* is mainly due to *Kapha Dosha*, *Badddha/Vibaddha*, and *Shushka* is due to *Vata Dosha and Drava*, and *Bhinna Purisha* is due to the predominance of *Pitta Dosha*. Few disease conditions, where changes in consistency of stool observed, are presented in Table 3.

Table 3: Changes in consistency of stool in various diseases.

<b>Consistency of stool</b>	Diseases involved
Sandra (dense)	Kaphaja Atisara, and Sahaja Arsha Asadhya Pandu, Vataja
Baddha/ Vibaddha	Prameha, Udararoga, Baddhodara, Purishavrita Vata, Ashuddha
(solid)	Dugdhapana Sevana, Tridosha Dushti, Tikshnagni, Vataja Atisara,
	Vataja Visarpa, Vataja Jwara, Sahaja Arsha, Vataja Arsha,
	Mahashvasa, and Malavirita Vata

Drava (watery)	Paittika Arsha, Vatika Grahani, Asadhya Atisara, and Mandagni
Bhinna (loose)	Paittika Arsha, Shlesmika Grahani, Kshayaja Kasa, Kaphavirita
	Apanavayu, Pittaja Murchha, Vega Sandharanjanya Yakshma, and
	Arsha Samanya Lakshana
Shushka (dry)	Vataja Grahani and Sahaja Arsha

# Ghranaja pariksha (Examination by odor)

By *Ghranaja Pariksha*, the odor of the stool can be examined. Changes in odor of stool also can provide information about the altered pathological state of *Agni*. Various types of odors have been described in the context of various diseases. *Amagandhi* (smell of *Ama*), *Visragandhi* (smell of raw meat), and *Kunapagandhi* (smell of dead body) are the typical odors found in many diseases [Table 4].

Table 4: Change in odor of stool in various diseases.

Odour of stool	Diseases involved
Durgandhita (foul smell)	Shleshmika Atisara, Paittika Pandu,
	Asadhya Sannipataja Chhardi, Ama Purisha,
	Purishavaha Srotodusti, and Vid Vighata
Visragandhi (smell of raw meat)	Paittika Arsha and Shleshmika Atisara
Atidurgandhita (extremely foul smell)	Paittika Atisara and Paittika Arsha
Amagandhi (smell of Ama)	Amatisara
Mahatputigandhi (putrefied smell)	Jalodara
Nirgandha or Sagandha (without or	Agantuja Atisara
with odor)	

# Sparsha pariksha

Under this, *Sheetata* (coldness), *Ushnata* (hotness), *Snigdhata* (unctuousness), and *Rukshata* (roughness) of stool can be taken into consideration. Thus, on the basis of differences in touch only; one can diagnose the altered state or the diseases [Table 5]. However, practically, it is very difficult to assess.

Table 5:

Type of sparsha	Diseases involved
Sheeta (Cold)	Ajirna and Shleshmika Atisara
Ushna (Hot)	Paittika Arsha
Snigdha (Unctuous)	Shleshmika Arsha and Kaphaja Atisara
Ruksha (Rough)	Vataja Jwara and Vataja Atisara

# Prashna pariksha (interrogation)

It is an important method of examination, which gives a lot of information about the condition of the patient.

The same may be applied to obtain information related to frequency and amount of stool and associated symptoms such as pain [Tables 6 and 7].

Table 6: Abnormal quantities/frequency of stool in various diseases.

Quantity or frequency of stool	Diseases involved
Alpa (less in quantity)	Sannipataja Jwara, Pandu, Vataja Atisara,
	Vataja Pakva Atisara, Purishavaha
	srotodushti, and Devonmatta Purusha
Atipravritti (more frequency and quantity	Paittika Atisara, Amatisara, Sannipataja
	Atisara, and Asadhya Atisara
Sanga (less frequency)	Vataja Gulma, Apana Vayuavrudha, Atisara
	Purva Rupa, Shuska Yoni, Udararoga,
	Asamyak Virechana, Vata Ashthila,
	Mutra Jathara, Udararoga, and Baddhodara
Alpa Alpa (less in quantity and frequency)	Vatika Atisara, Shlesmika Atisara,
	Pravahika, Vatika Grahani, Chhidrodara,
	and Purishavaha Srotodushti
Muhurmuhu (frequent)	Vataja Grahani and Vataja Atisara
Krichhra Mala Pravritti (passing stool with	Vataja Ashmari, Vid Vighata, Amashaya
difficulty)	Krudha Vayu, and Pakwashaya Krudha
	Vayu
Sashabda Mala Pravritti(passing stool with	Vataja Arsha, Ama Atisara, Purishavaha
sound)	Sroto Dushti, Purisha Kshaya, and Vataja
	Grahani

Table 7: Type of pain during defecation in various diseases.

Type of pain	Diseases involved
Sashula (with pain)	Amatisara
Sashula Sadaha (with pain and burning)	Paittika Atisara
Parikartika (gripping pain)	Vataja Atisara
Pravahana (tenesmus)	Pravahika
Shula, Gudasrava (discharge from anus	Jalodara
with pain)	
Chirat Dukham (passing with difficulty)	Vataja Grahani
Sashula Pravahana (tenesmus with pain)	Kaphaja Arsha, Kaphaja
	Atisara, and Pravahika
Kunthana (painful strain)	Samatisara and Visamagni

# Jala nimajjana purisha pariksha (Examination of stool by dipping in water)

This is the only objective method which was used in ancient times to detect the presence of Ama in stool. Ama is considered as an important cause not only for the gastrointestinal disorders but also as the cause of many systemic diseases such as Jwara and Amavata. To detect the early presence of Ama, a special methodology was used that is Jala Nimajjana Purisha Pariksha. In this method, by observing the behaviour of stool, i.e., whether it sinks or floats in water is noted down. If stool sinks, it indicates the presence of Ama. If it floats, then Ama is absent in stool.<sup>[10]</sup>

If the method analyzed critically as described in the text, it is observed that there are so many variables, which may alter the result if done by different persons. The probable variables, which may alter the results, are:

- Quality of water
- Quantity of water
- Testing container
- Quantity and consistency of stool
- Method of dropping stool.

Hence, the method should be standardized to obtain a reproducible result by taking into consideration of the above parameters. After standardization, it may be an instant method to detect the Ama in the stool.

#### DISCUSSION

Ayurveda considers *Dosha*, *Dhatu*, and *Mala* as foundation of the body. <sup>[2]</sup> *Mala* is produced as a by-product of our daily activities. If Mala is not excreted from the body, the metabolic process will be impaired leading to the formation of malformed tissues. They are important for normal physiology of the body and each of them carries specific functions. *Malas* enable nutrition as well as the elimination of wastes from the body in terms of abnormalities in Varna (Color), presence of froth, consistency, Gandha (Odor), Sparsha (touch), Matra (quantity and frequency), and associated factors such as pain. These abnormal characters may be used to diagnose various types of diseases or pathological conditions. Analysis of abnormalities in color of the stool indicates appearance of Krishna (Black), Shyava (Gray), and Aruna Varnas (Reddish) in Vata predominant diseases, as vitiated Vata brings these colors. Similarly, the Shukla Varna (White) is seen in Kapha predominant diseases as Shukla Varna is the manifestation of vitiated Kapha. When Pitta is vitiated, it brings the changes Rakta Varna (Red). It is observed that the diseases having Kapha predominance show Sandra (dense) in consistency which is possibly due to the Sandra Guna (Dense quality) of Kapha. Baddha/ Vibaddha consistency are observed in the diseases mostly having Vata predominance and this may be due to the Shoshaka Guna (Absorptive quality) of Vata, which absorbs the Kledamasha (Liquid part) of the stool when vitiated. Similarly, when Pitta is

vitiated it changes the consistency of the stool into Drava (Liquid) due to its Drava Guna [Table 3]. Amagandha is due to the formation of Ama due to altered pathological states of Agni. Ama is mainly formed due to Mandagni, and the Amagandhi stool is observed in Amatisara. When Pitta and Shelshma Doshas vitiate, then they bring the changes in odor of the stool as Visragandhi, which is seen mainly in Paittika Arsha and Shleshmika Atisara. Kunapagandha is manifested when Tridoshas are vitiated and it is observed in the diseases, which is due to the vitiation of *Tridosha* that is *Chidrodara* [Table 4]. The various changes in stool due to vitiation of *Dosha* may manifest in the form of changes in touch as *Sheeta* (cold), Snigdha (unctuous), Ushna (hot), and Ruksha (rough). Sheeta and Snigdha are due to the vitiation of Kapha Dosha and mainly observed in Kapha predominant diseases due to its Sheeta and Snigdha Guna. Similarly, Ushna and Ruksha Sparsha are due to the vitiation of Pitta and Vata Dosha, respectively, due to their respective quality [Table 5]. Alpa Purisha (less in quantity) is due to mainly vitiation of Vata Dosha due to its Ruksha and Khara (coarseness) a. Guna Hence, Alpa and Alpa Alpa Purisha is mainly seen in Vata predominant diseases. Similarly Atipravritti may be seen either in the disease having Pitta or Kapha predominant diseases due to their *Drava* and *Kleda Guna*, respectively [Table 6]. Besides the above description regarding the abnormalities in physical characters of Purisha, one important method of examination to know the presence of Ama in Purisha has been described under the Jala Nimajjana Pariksha in the context of few diseases such as Atisara and Grahani in almost all the Samhitas and in the texts of medieval period. This method is a definite and instant method to detect the presence of Ama in stool by observing the sinking and floating behavior of the stool on water. However, to get a reproducible result, it should be standardized.

#### **CONCLUSION**

Stool is an important by-product of the metabolism and reflects the changes occurring in the body in different pathological and diseased conditions. Hence, this has been given third place in *Ashtasthana Pariksha* after *Nadi and Mutra*. Abnormal changes in stool pertaining to its color, smell, consistency, frequency, and quantity have been described in various disease conditions. An attempt has been made to collect these scattered references from *Samhitas* at one place and one can refer these changes in stool for diagnosis of various disease conditions.

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