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# AN OVERVIEW ON PURISHA PARIKSHA (EXAMINATION OF FECES)

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#### **ABSTRACT**

According to *Ayurveda*, the only balanced condition of *doshas*, *dhatu* and *mala* is *Arogya* (good health or disease free condition) and their imbalance causes ill health. Those which pollute other components of body are called *malas*, being themselves the waste products of the food. *purisha* is considered to be *sharirika mala*. Stool is an important body substance which has to be checked for analyzing health and disease condition of a person. It is mentioned by *Acharya yogaratnakara* under *Astavidha pariksha*.

KEYWORDS: Mala, purisha, stool, Ayurveda, Astavidh pariksha.

#### INTRODUCTION

Dosha dhatu and mala are considered as 'moola' (foundation) of body. [1] The body is formed and maintained by their balance. Mala are divided in to two major parts that is *sharirika mala* (body waste) and *dhatu* mala (metabolic waste). Sharirika mala is further divided in to three parts i.e, mutra, purisha, sweda and dhatu mala are further classified in to seven types. [2] Purisha comes under sharika mala. Both mutra and purisha is waste product of food. [3] Mala pariksha has been emphasied as important examination tool after that era of Acharya yogratnakar. Before that in samhita kala, characteristic of stool has mentioned in scattered manner in symptomatology of various diseases. Acharya Susruta considered as *upsthmabha*. [4] and *Acharya Vagabhata* considered as *avasthma*. [5] In Ayurvedic texts, examination of stool is limited mainly up to the examination of physical characteristics such as color, quantity, odor, 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  $Ama^{[6]}$  Where as modern aspect provide detailed study of examination of feces. It broadly divides in to three parts Physical, chemical and microscopic examination.<sup>[7]</sup> Here author focuses on compilation of scattered data related to changes pertaining to stool in various disorders mentioned in our brihattrayi and in modern text, so that it helps in better understanding and diagnosing diseases.

# Process of formation of purisha

Purishavaha srotas is the site of formation and excretion of purisha<sup>[8]</sup> pakavashaya (large intestine) and sthula guda (anal canal) are the roots of purishvaha srotas.

Purish dhara kala plays vital role in formation of purisha. Purishdhara kala is also called as "mala dhara kala" After dhatu paka, Prasad bhaga(nutrient portion) and kitta bhaga( waste portion) is formed. Prasad bhaga get absorbed and the remaining undigested part (kitta bhaga) becomes solid and that is called purisha. [10]

#### Formation of feces

Undigested food comes from ileum in to colon consist of indigestible material (cellulose) and liquid. Undigested food goes to colon water, salts, and vitamins are absorbed in to colon, and remaining content in the lumen becomes feces.

#### Characteristics of normal purisha

Characteritisics of normal purisha in terms of physical characteristics such as *gandha* (odor), *varana* (color), and *vaishadya* (unstickiness/clear) are not described separately in the ancient and medieval period texts of *Ayurveda*, but *purisha pariksha* has been given due to importance in context to diseases .Only *pramana of purisha* was described by *Acharya charka* as "*sapta anjali*" *pramana*.<sup>[11]</sup>

# **Characteristics of normal stool**

- Color- light to dark brown due to presence of bile pigments
- Odor-pungent smell which is caused by indole and skatole which are formed by bacterial fermentation and putrefaction.
- Frequency-one to two per day and its painless
- Consistency-In adult, the stool is well formed i.e, neither too hard nor too soft (about the consistency of a ripe banana)

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 Amount - Normal amount of feces in an adult is 100-200 g per day<sup>[12]</sup>

### Importance of purisha pariksha

- Status of *agni* (digestive fire)
- Prognosis of disease
- Symptoms of abnormal doshas
- Presence of krimi
- In patient of *rajyasksma purisha* is considered as "balam tasya hi vidbalam" [13]

#### Importance of stool examination

- Intestinal bleeding.
- Infestation.
- Inflammatory diseases.
- Mal absorbtion.
- To rule out Different causes of diarrhea.

#### METHOD OF EXAMINATION

There are two methods of *purisha pariksha* described in Ayurveda

- Physical examination of stool
- Jala nimajjana purisha pariksha to detect the presence of Ama.

#### Physical examination of stool

A detailed description has been described in *brihattrayi* regarding the changes in physical characteristics of *purisha* in various diseases.

#### Chakshusha pariksha (inspection)

1. Examination of color

# Change in color of stool in various diseases

- Krishna varna (black color)- Vatika arsha, Vatika Gulma, kumbha kamala, pattika atisara,vata prakopa
- Shyava, Aruna varana (grey and reddish color)-Vatika Udaroga, Vatika arsha, Vatika Atisara, Vata prakopa, Vata Gulma, vata jwara.
- Shukla varna (white color)- shleshmika jwara, shleshmika udaroga, shleshmika arsha, shleshmika pandu, shakhashrita kamala, shleshmika atisara, sahaja arsha.
- Rakta varna (red color)- kamala, pittja atisara, raktapitta, sahaja arsha, chhidrodara.

#### 2. Presence of froth

Froth is present in stool due to *vata dosha*.

#### Presence of froth in stool in different diseases

- Vataja Arsha
- Vatika Atisara
- Vataja Grahni

#### 3. Changes in consistency

Sandra mala is due to predominance of kapha dosha. Baddha, and sushka is due to vata dosha ,drava and

bhinna purisha is due to pitta dosha. Change in consistency of stool can be co-related with purish kshya and purish vridhi lakshan.

#### Changes in consistency of stool in various diseases

- Sandra (dense)- kaphaja Atisara, sahaja Atisara.
- Baddha/vibaddha (solid)-Asadhya Pandu, Vatajaprameha, udararoga, Baddhodara, Purishishavrita Vata, Ashuddha Dughdhapna Sevana, Tridosha Dushti, Tikshagni, Vataja Atisara, Mahashyasa
- Drava (watery)- pattika Arsha, Vatika Grahani, Asadhya Atisara Mandagni
- Bhinna (loose)- pattika Arsha, Sleshmika Grahani, Kshayaja Kasa pittja Murchha, Vegasandharanjanya Yakshma, Arsha samanya Lakshana
- Shushka (dry)- Vataja Grahani and sahaja Arsha.

#### **❖** Ghranja pariksha (examination by odor)

Change in odor of stool also can provide information about altered pathological state of *agni*.

#### Change in odor of stool in various diseases

- 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
- Kunapagandhi (smell of dead body)- Chhidrodara and Sahaja Arsha
- Kunapa, Puya, Ama Matsyagandhi (smell of dead body, pus, Ama, and fish)- Sannipataja Atisara
- Mahatputigandhi (putrefied smell)- Jalodara
- Nirgandha or Sagandha (without or with odor)-Agantuja Atisara

# Sparsha pariksha

#### Change in Sparsha (touch) of stool in various diseases

- 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)

Prashna Pariksha is an important method of examination, provides information about the condition of the patient such as frequency and amount of stool and associated symptoms such as pain can be obtained.

# Abnormal quantities/frequency of stool in various diseases

 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
- Bheda (loose) -Kshayaja Yakshma, Ayathabala Samarambha Janya Yakshma, and Vegasandharana Janya Yakshma
- Krichhra Mala Pravritti (passing stool with difficulty)- Vataja Ashmari, Vid Vighata, Amashaya Krudha Vayu, and Pakwashaya Krudha Vayu
- Sashabda Mala Pravritti (passing stool with sound)-Vataja Arsha, Ama Atisara, Purishavaha Sroto Dushti, Purisha Kshaya, and Vataja Grahani.

#### Type of pain during defecation in various diseases

- 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 with pain)-Jalodara
- 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 test determines the presence of *Ama* there by indicating state of digestive fire which is considered as major cause for different diseases. Test is based on the behavior of stools in water. If stool sinks in water, it indicates presence of *Ama*. If it floats, indicates, absence of Ama in stool. There are certain exceptions in which this test cannot be performed like if stool is too watery or too dry, very cold or vitiated by *kapha* [6]

#### **Examination of Feces**

It can be divided in to three parts i.e, physical, chemical and microscopic examination.

# Physical examination

In this we study about, Consistency, Color, Mucous Blood, Parts of parasite, Adult parasite.

# a. Color / appearance of the stool.

There are certain causes that causes change in normal color of stool

- Black (tarry black): iron or bismuth ingestion, bleeding from the upper GI tract.
- Red color: diet high in beats, undigested tomatoes, laxatives of vegetable origin, bleeding from lower GI tract.
- Red streaks of blood on feces: bleeding from the hemorrhoids, fissure, ulcerative lesion or carcinoma of rectum or anus.
- Clay colored (gray white): billiary obstruction
- Silvery: carcinoma of ampulla of vater
- Rice water: cholera.

# b. Abnormal consistency of stool

- Pale, bulk, frothy steatorrhea (poor fat digestion)
- Hard -constipation
- Flattened and ribbon like- obstruction in the lumen of the bowel
- Semisolid –mild diarrhea, after taking laxative, digestive upsets
- Watery –bacterial infection, purgative
- Rice water stools(copious, thin with white flakes) cholera

#### c. Change in odor of stool

The foul odor is caused by undigested protein and by excessive intake of carbohydrates.

- Foul smelling: Acute enteritis, malignant ulcer in rectum and distal colon.
- Foul, frothy and bulky: Malabsorbtion syndrome
- Unformed, foul smelling, frothy: Steatorrhea

#### **Chemical examination**

#### a. pH

Normal pH is 5.8 to 7.5 strongly acidic stools (pH below 5.5) is due to excess of carbohydrate in diet, and strongly alkaline stools (pH more than 7.5) is due to excess of protein in diet. [14]

# b. Occult blood

Occult blood means that you can't see it with naked eyes. Blood in stool means there is likely some kind of bleeding in digestive tract. It may caused by a variety of conditions, including hookworms, amoebiasis, ulcerative colitis, intussusception, cancer of colon or rectum, peptic ulcer, gastritis, esophageal varices etc.

Test for detection of occult blood in feces are-Benzidine test, Gauiac test, Orhthotolidine Test. [15]

#### c. Excess fat excretion (malabsorbtion)

Normally very liitle fat is excreated in feces (<7g/day in adults). Excess excretion of fecal fat indicates malabsorbtion and is known as steatorrhea. It manifests as bulky, frothy, and foul smelling stool. It caused by certain conditions including chronic pancreatitis, cystic fibrosis, severe liver disease, tropical sprue, whipple's disease.

Test for fecal fat are Qualitative (direct microscopic examination after fat staining) and (Quantitative – gravimetric or titrimetric analysis).<sup>[15]</sup>

# Microscopic examination

we observe following organisms, their parts, related eggs Protozoans, Nematohelminths, Platyhelminths, Plant cells and fibers, Crystals Fat globules, Bacteria, Erythrocytes Pus cells.

#### DISCUSSION

Ancient science of *Ayurveda* has well explained clinical examination of patient and diseases. Examination of disease is done with help of *Roga pariksha* and examination of patient is done with help of *Rogi pariksha*. *Purish pariksha* is mentioned by *yoga ratnakar* under eight fold of examination. It is important as it has been given third place in *asthavidh pariksha* after *nadi* and *mutra*. <sup>[16]</sup> Stool, contribute toward good health by getting eliminated in time. For the body to enjoy its health, it should be thrown out of the body in right proportions and in right time, when get stagnated in the body it disturb all functions and cause diseases. Abnormal physical characters of stool can be classified as *varna*(color), *gandha* (odour), *sparsha* (touch) etc.

Color variation in stool is usually seen when stools are afflicated with doshas, in particular diseases, also depend on intake of particular medicine or food. Krishna (black), shyava (grey) and aruna varna (reddish) of purish is seen in vata predominace. Shukla varna (white) is seen in kapha predominance while rakta varna (red) is seen in piita predominance. Normal consistency is semisolid like that of ripe banana, increase in Sandra guna of kapha is responsible for Sandra mala. Increase in shoshka guna of vata will lead to baddha/vibaddha mala. Amagandhi stool is due to presence of ama and ama is formed due to mandagni. When tridosha is vitiated kudupagandhi stool is seen. On touching stool, if it is snigdha (unctuous) and shetal (cold) it is due to kapha dosha. Ushna (hot) is due to pitta and ruksha (dry) is due to vata dosha. Through interrogation we get information about condition of patient, frequency and quantity of stool passed, previous history of illness, presence of associated symptoms etc which help in proper diagnosis and treatment of condition. Beside describing physical abnormalities one special examination mentioned in samhitas that is jala nimajjana purisha pariksha which determines presence of *Ama* there by indicating state of digestive fire which is considered as major cause for different diseases.

#### CONCLUSION

Stool examination is important laboratory investigating tool in medicine, which is used to understand the health and disease condition of a person. Its quality and quantity of formation helps in knowing if they are in balance or out of balance. Hence, an attempt has been made to collect the scattered information about *purisha* from *samhitas* at one place by using *Sushruta shadvidha* 

pariksha (six fold examination)<sup>[17]</sup>, so that it helps in understanding the pathology properly and also treating them comprehensively.

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