VOLUME 2

TEXTBOOK OF ayurveda

A COMPLETE GUIDE TO CLINICAL ASSESSMENT

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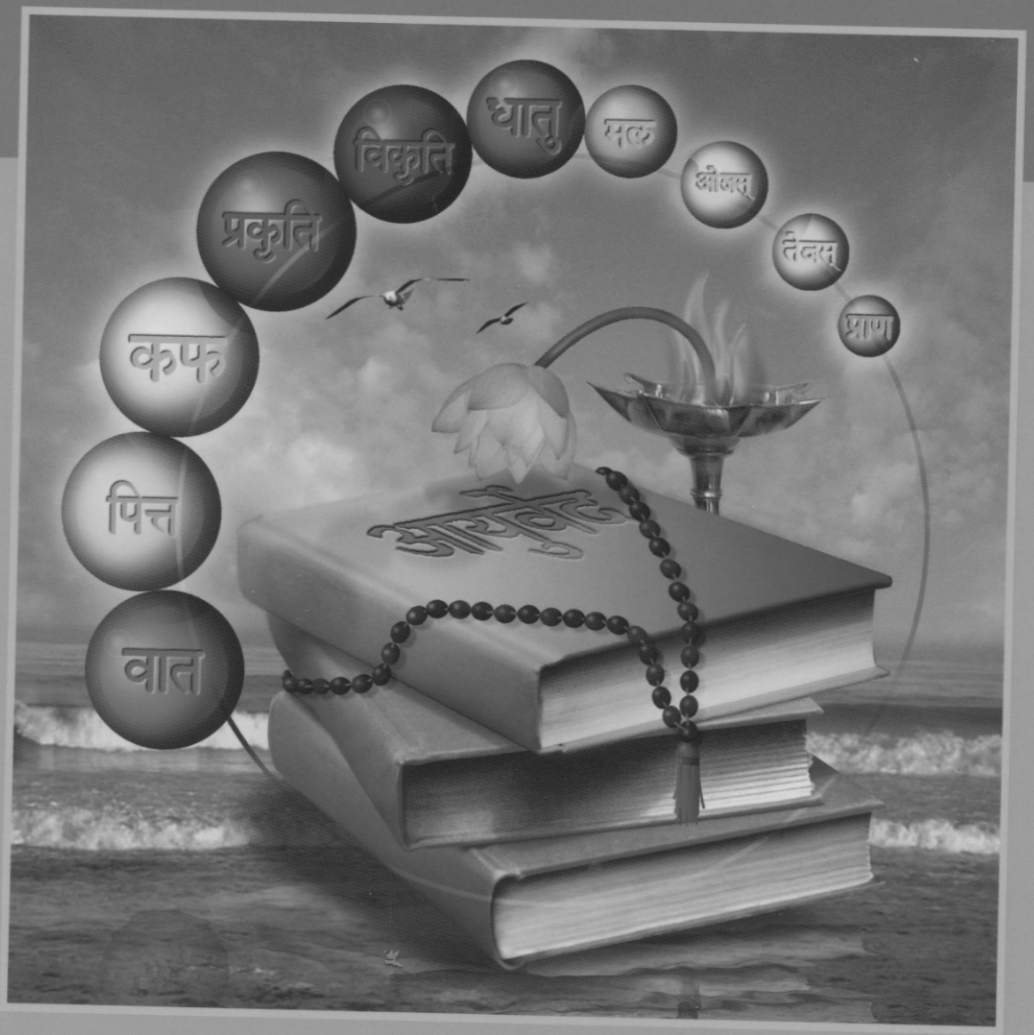


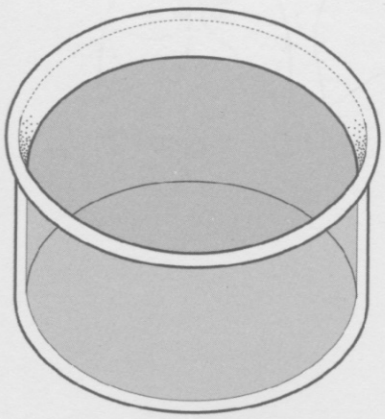
Mūtra Parīkshā (Urine)

Mūtra means urine and, according to Āyurveda, it is one of the three important excreta (mala): urine, feces and sweat. Urine and sweat are liquid wastes, while feces are solid wastes. Mūtra has the important function of removing excess *kleda*, the liquid component of bodily tissues, while *sveda* (sweat) maintains optimal levels of kleda in the tissues and lubricates the skin.

Inspection of mūtra using darshanam (observation) can be an important part of Āyurvedic diagnosis. Collect an early morning mid-stream urine sample in a glass and study its characteristics.

Table 9: General Urine (Mūtra) Evaluation

Quality	Vāta	Pitta	Kapha
Color	Colorless	Yellow-greenish	Opaque
Smell	Astringent	Sour	Slightly sweet
Quantity	Scanty	Copious	Plentiful
pH	Slightly acidic	Acidic	Alkaline
Appearance	Bubbly	Oily	Slimy
Oil drop test	Spreads quickly	Seven rainbow colors	Spreads slowly
Āma	Strong smell	Dark with fleshy smell	Turbid and cloudy with moldy smell



Normal Clear Urine

Color. First, look at the color of the urine by holding it up against the light. Healthy urine has a light yellow or pale amber color, due to rañjaka pitta. If it is darker yellow or amber colored, it usually means either the person is not taking in enough water or there is a loss of fluids from diarrhea, dysentery, excessive sweating, fever or some other cause. A person who eats a high-protein diet will also have dark, yellow-colored urine, as will people who take B-complex vitamins.

A cloudy color indicates kapha; colorless with bubbles is vāta; and greenish-yellow is pitta. Colorless urine may also mean it has been diluted from excessive consumption of water. Milky colored urine is chyluria or lipiduria. Urine can also look cloudy, due to phosphate crystals, and turbid, due to the albumin. If the urine is dark green in color, it means there is bile in the urine, called biliuria. Red-colored urine may be due to blood in the urine, called hematuria, calcium oxalate crystals, consumption of beetroot or beet juice (which is not pathological) or possibly from kidney stones or melanoma.

If urine looks black, as if somebody has put charcoal in it, this is due to the presence of melanin, while if it is orange-pink, there may be

phenolphthalein. Dark color comes from melanin pigment and carbolic acid; indigo color is a sign of congestive cardiac failure, while lime-green color is indicative of bronchiectasis.

If the urine is pale and watery, it indicates low specific gravity, which is the weight of a substance compared to an equal volume of water. The normal specific gravity of urine is 1.015 to 1.025.[1] If the specific gravity is low, that means the person has chronic renal failure, nephritis or some other vāta disorder. If high, it indicates a kapha disorder from excessive alcohol consumption, diuretic drugs, chronic renal failure or diabetes.

Smell. Normal urine has a typical smell because of rañjaka pitta. If the urine has a fleshy odor or it smells like horse urine, it may be from eating asparagus. A sweet, aromatic smell is due to diabetes and a foul, fecal-like smell is due to fistulae or toxicity (ama) in mūtra vaha srotas. The odor of the urine is very suggestive. An ammonia odor signifies nephrotic syndrome, while a fishy odor signifies cystitis.

Quantity. The normal quantity of urine excreted within twenty-four hours is 7 to 8 cups. When this quantity is increased, it may either be due to anxiety, excessive water consumption, taking coffee or diuretic herbs or medicines, or because it is winter season. If none of these things applies, it may indicate diabetes. If the quantity is less than 7 cups, it might be because of insufficient water intake, hard physical labor, excessive exercise, chronic fever, dehydration, other vāta disorders or summer season.

Acid-Alkaline Balance. Normal urine is slightly acidic, bitter and salty. If it becomes very acidic, this shows excess pitta, resulting in acidosis or pyelonephritis. Alkaline urine indicates high kapha, often due to bacterial infection. Sour foods, such as citrus, increase pitta and make the urine acidic. Similarly, urine often becomes alkaline because of excessive consumption of alkaline food.

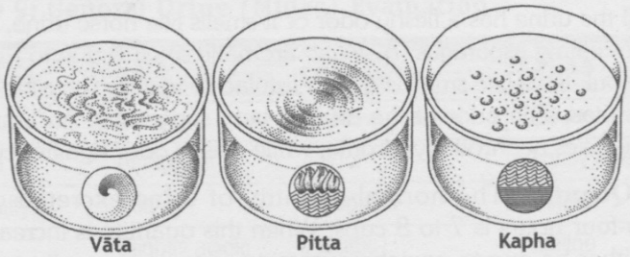
Ingredients of urine include 95% water along with solids, urea, uric acid, creatinine, ammonia and inorganic substances such as chlorine, calcium, magnesium and phosphates. It is not normal for albumin, glucose, ketone, blood or pus to be present.

Taila Bindu Parīkshā (Sesame Oil Drop Examination). A test using sesame oil is used in Āyurveda as a primary method to detect vāta, pitta and kapha in the urine through a naked eye examination. Collect the early morning urine in a glass and with

1. This is measured with a urinometer, a form of hydrometer, which uses a weighted float placed in the urine. The depth to which it sinks is noted on a scale and further calculations are done to determine specific gravity.

sufficient light and the help of a toothpick, put one small drop of sesame oil on the surface of the urine and observe how it spreads.

If the drop spreads quickly with an irregular serpentine or wavy movement, it is sign of high vāta in the urine. That urine will have an astringent smell and be full of little bubbles. If the drop spreads with the appearance of all seven rainbow colors, that is sign of pitta in the urine. Such urine has an acidic smell and a dark yellow color. In the case of kapha, the drop will be clear, with either circular or oval margins, and spread very slowly. It will probably break down into small droplets. Kapha urine has a slight turbidity or a pale, semi-transparent, cloudy appearance.



Oil Drop Test

This sesame oil drop test is also an important prognostic tool. So long as the drop floats, that means the disease is easy to cure, but if the drop sinks to the bottom of the cup, it means the person is suffering from a terminal illness or one that is very difficult to cure.

If you look at the glass containing the urine and sesame oil drop, imagine it is divided into four equal quadrants. Then figure out where north is, so you can relate the directions to the glass. If the drop spreads more to the eastern side of an imaginary midline, the disease is easy to cure. If it spreads to the north, it is quite easy to cure. However, if the drop spreads to the west, it means the person has chronic fatigue syndrome or another type of debilitating disease. These diseases are rather difficult to cure. If the drop spreads mainly to the south, it means the person is suffering from spiritual possession. Some diseases, whose causes are not known, will be labeled as idiopathic disorders. I have observed that in most idiopathic disorders, the oil drop spreads to the south, indicating that the person has a disorder of the mind. This includes illnesses such as schizophrenia, mania, psychiatric problems, psychosis or psychoneurosis.

While doing this oil drop examination, the mind of the Āyurvedic physician or student should be quiet, peaceful, meditative, alert and aware. Whether the drop spreads to the east, west, north or south is due to the geomagnetic and solar energy. To get accurate results, this test should be done during the morning from about 9 to 11 AM.

Table 10: Sesame Oil Drop Test on Urine

North	East	West	South
Prognosis: good Suffering will bring a blessing	Prognosis: good Disease easy to cure	Prognosis: difficult to cure	Prognosis: bad Spiritual possession or mental illness
Southeast (Fire)	**Southwest (Earth)**	**Northwest (Air)**	**Northeast (Water)**
Impaired agni Pitta dushti	Spiritual possession or mental illness Kapha and vāta dushti	Respiratory problems Prāna or vāta dushti	Higher spiritual functions are involved

Purīsha or Mala Parīkshā (Feces)

Feces are known as *purīsha* or *kitta*, but they are often simply called mala. The normal quantity of feces is about one *añjali* (about 200 to 250 grams) twice a day, depending upon the number of meals a person eats and the nature of the diet. However, if a person eats only one meal a day or is fasting, the quantity will be less than one añjali.

If someone eats normal quantities of food and the amount of feces is excessive, it means there is low agni and possibly malabsorption, because undigested foodstuff increases the amount of stools. This can also be a sign of pancreatic disorder, which is a *kloma agni* dysfunction. Decreased purīsha is a sign of *tīkshna* (excessively high) *agni*, as it dries up feces, while irregular amounts of feces is a sign of *vishama* (irregular) *agni*.

Table 11: General Feces (Purīsha) Evaluation

	Vāta	Pitta	Kapha
Quantity	Scanty	Medium	Large, copious
Qualities	Dry, hard	Oily, liquid	Oily, slimy
Color	Dark brownish	Yellow-green (or red)	Pale yellow
Smell	Slightly astringent	Strong and acidic	Sweet smell
Consistency	Bullet-like, tendency toward constipation	Loose, tends to get diarrhea	Well-formed stools

Color. Normal stools have a light brownish-yellowish color, due to the presence of rañjaka pitta. As a rule, vāta stools are dark brown in color, pitta are yellowish-green and kapha are pale yellow. Pale yellow stools may mean the person has a milky diet, which is why children who are on a milk diet have yellow stools. If the feces are

dark, the person probably eats meat, drinks red wine or eats dark-colored foods such as grapes. Tarry black stools are a sign of occult blood in the stool, from a peptic ulcer or upper gastrointestinal (GI) tract bleeding. The iron present in the blood makes the stool look this dark, tarry color.

Brownish stools result from a typical mixed diet. The stools may be green due to gallstones or excess bile, greenish-yellow from a liver disorder, or yellow due to undigested fat, as in steatorrhea. Red-colored stools indicate bleeding and may be due to hemorrhoids, cancer of the rectum, ulcerative colitis, dry hard feces, rectal polyps, a foreign body in the colon, colitis, partial intestinal obstruction, typhoid fever, phosphate poisoning or cirrhosis of the liver with increased portal hypertension. However, a person's stools may also be red if they eat red meat, rhubarb, red cabbage, beets and carrots. Clay-colored stools are a sign of obstructive jaundice.

Odor. If the odor of the stools is offensive, it indicates āma (toxins). If the smell is putrefactive, that means there are undigested proteins. Pitta stools have the strongest odor—usually a sour or pungent smell—which may be a sign of hyperacidity, acid indigestion, jaundice, fever, and/or diarrhea. A musky smell indicates pancreatitis, a fermented smell can be due to undigested carbohydrates and a rancid smell may be a sign of a peptic ulcer.

Sometimes the smell of the stools is due to the type of food eaten. For instance, garlic and onions give an offensive smell because of their sulfur content, while alcohol can produce a fermented, alcohol-like smell and hot spicy foods such as chili can provoke pitta in the upper GI tract, causing a pungent odor. Vāta stools have no particular smell or a slightly astringent odor, while kapha stools smell sweet. The stools may be alkaline due to kapha or acidic because of pitta.

Consistency. Normal, healthy stools are fairly soft and have the shape of a banana, molded by the intestinal tube. In constipation, the stools become like small balls or rabbit droppings, which is a sign of high vāta. Semisolid or loose stools are due to diarrhea, caused by high pitta. This can also cause malabsorption and dysentery. If the stools are pencil shaped, think about cancer of the rectum. If they are bulky and large, the person may be taking bran, psyllium husks or some other type of fiber.

Flattened, ribbon-shaped stools occur in rectal obstruction and spastic colitis. Excessive mucus is found in the stools in cases of amoebic dysentery or amebiasis. Other abnormal constituents of the stools include undigested food, ova, worms, mucus or parasites, which indicate various conditions. The presence of fat in the stools

indicates pancreatic dysfunction, while pus shows there is a secondary bacterial infection.

Stool residue contains mostly water as well as bacteria, parasites, undigested food particles, epithelial tissue, mucus discharged from the bowels, nitrogenous wastes, undigested cellulose, intestinal secretions (*pāchaka pitta*), secretions from the stomach (kledaka kapha), liver secretions (rañjaka pitta), cholesterol and bile pigments (also rañjaka pitta).

Āma (Toxicity). The most important thing is whether the stools are sāma (with toxins) or nirāma (without toxins). Sāma stools are heavy and sticky, so they sink to the bottom and stick to the toilet. Even if you flush, they are gluey and you have to use a little broom to clean the toilet. On the other hand, nirāma stools float in the toilet water and can be flushed easily, without creating stains. So if a person has a stained toilet, think about āma.

Jihva Parīkshā (Tongue)

The tongue is a dual organ. It is the organ of speech, so it is a *karmendriya* or motor organ and a *jñānendriya* or sensory organ that perceives taste. Karma means action and *jñānam* means cognition.

By knowing one organ completely, you can know the entire body. Just by seeing someone's palm, you can know the whole person. Similarly, if you know the tongue, you will know about the internal organs and other aspects of that person. The different areas of the tongue are connected to the organs as shown in the diagram.

Āma on the Tongue. Āma is dry blackish-brown or rough, more toward the back of the tongue, in the colon area. Pitta āma is yellowish-green in the central portion of the tongue. Kapha āma is a pale, white color and is all over the tongue.

Size and Shape. When doing tongue diagnosis, ask the person to stick out their tongue and look at it closely. A vāta tongue is thin, small, brownish in color and looks a little dry. It is relatively active, like a lizard, and you will often see fine tremors or twitching. A pitta tongue is broad at the base and tapered at the apex. The tip is red and the margins are distinct and sharp. It often has a yellowish or reddish discoloration. A kapha tongue is large, round, glossy and thick. It occupies the entire oral cavity and it is wet and relatively pale. Note that an excessively large tongue is a sign of acromegaly, stomatitis, leukoplakia or syphilis.

Color. A pale tongue indicates anemia. If the entire tongue is yellow, it may be due to a pitta disorder such as jaundice or another type of liver dysfunction, while a green tongue indicates a gallbladder