

DESCRIPTION OF URINE (BAUL) IN CLASSICAL UNANI LITERATURE, ANALYSIS AND DIAGNOSIS-A REVIEW

Ashfaq Ahmad* & Ala Narayana**

ABSTRACT

Istifragh is an important aspect of the *Asbab Sitta Daruria* (Six essential causes) according to Unani concepts. *Istifragh* means evacuation or excretion of the substances whose retention may cause harmful effect to the body such as urine, stool, sweat etc which are constantly formed as by products of daily activities. Urine is also one of the important waste products by which the impurities of the body are excreted. Three important investigative methods for (*Tashkhees Amradh*) the diagnosis of various aspects of diseases such as examination of *Nabdh* (pulse), *Baul* (urine) and *Baraz* (stool) have been described in Unani texts. *Mu'aina Baul* (Examination of Urine) is one of the important method of clinical and laboratory diagnosis and was also the main investigative tool in the past. Unani scholars like *Ali ibn Rabban Tabri* (780 AD), *Mohammad Ibn Zakaria Razi* (865-925 AD), *Ibn Sina* (980-1037 AD) used the parameters like Color (*Laun*), Density (*Qiwam*), Turbidity or transparency (*Kadurat, Safa*), Sediment (*Rasub*), Quantity (*Kammia*), Odor (*Ra'cha*) and Froth (*Zubdah*) for the diagnosis and prognosis of different diseases.

Introduction:

Unani system derived its basics from the great Greek physicians of yore and evolved steadily and gradually in western Asia, withdrew from the region of its birth, first expanded and then shrank into the Indian subcontinent. India became the centre for rebirth of Greco-Arab Medicine where it is preserved in its classical form, overhauled and revamped drastically on scientific lines and patronized by the state. A self reliant and self propelling system in the domain of Unani Medicine is evolving in this country. Now it stages a comeback in the region of its birth, expands extensively in its present habitat and wins acceptance in western countries. Erudite scholars of India are engaged in contributing a lot in the evolution of Unani System.

*Research Officer (Unani) corresponding author, **Director, National Institute of Indian Medical Heritage (CCRAS), Gaddiannaram, Hyderabad-500036.

Unani system of medicine stresses principally for *Asbab Sitta Daruria* (Six essential causes) in moderate amount. They are responsible for the preservation of health and prevention of diseases. It recognizes the influence of environment and surrounding on health and lays great emphasis on the maintenance of proper eco balance as well as pure water, food and air as it prescribes six essentials for maintaining good health.

Asbab Sitta Daruria are:

- 1) *Al-Hawa* (Atmospheric Air)
- 2) *Makool wa Mashroob* (Foods and Drinks)
- 3) *Harkat wa Sukun Badni* (Bodily movement and Repose)
- 4) *Harkat wa Sukun Nafsani* (Psychic movement and Repose)
- 5) *Naum wa Yaqdhah* (Sleep and Wakefulness).
- 6) *Ehtibas wa Istifragh* (Retention and evacuation).

Ehtibas and *Istifragh* is an important aspect of the *Asbab Sitta Zaruria* (Six essential things). *Ehtibas* means retention of beneficial materials after digestion and metabolism which form the part of the body. *Istifragh* means evacuation or excretion of waste materials such as urine, stool, sweat etc. which are the byproducts of daily activities and are constantly formed. Their retention may cause harmful effect to the body. *Istifragh* should be in moderate quantity for proper functioning of the body.

Diagnosis of disease is based on clinical features, clinical examination and pathological investigations. For the diagnosis of various aspects of diseases and diseased person three important investigative methods have been described in Unani texts:

- a. *Mu'aina Nabz* (Examination of Pulse)
- b. *Mu'aina Baul* (Examination of Urine),
- c. *Mu'aina Baraaz* (Examination of Stool).

Mu'aina Baul (Examination of Urine) is described in a systemic way in ancient Unani texts. In the classics of Unani System of Medicine a detailed discussion about urine is given while it was pre-microscopic era when electron microscope and sophisticated instruments for pathological examination were not invented, merely naked examination of urine gave all details of different diseases to the bare eyes of Unani scientists and physicians of that time. It indicates their intellect and excellence in that field which today's modern science also approve.

Ali ibn Rabban Tabri (780 AD), *Mohammad Ibn Zakaria Razi* (865-925 AD), *Ibn Sina* (980-1037 AD) and other Unani scholars described in detail the points to be considered

for urine analysis such as Color (*Laun*), Density (*Qiwam*), Turbidity or transparency (*Kadurat*, *Safa*), Sediment (*Rasub*), Quantity (*Kammiah*), Odor (*Ra'cha*) and Froth (*Zubdah*).

EXAMINATION OF URINE

Mu'aina Baul can be used for diagnosis as well as for prognosis of the diseases.

Ibn Sina described the following prerequisite for urine examination ¹

1. Urine should be passed in the morning.
2. The specimen should not be retained for too long.
3. No food or drink should be taken before the collection of urine.
4. Substances which color the urine yellow or red should not be taken.
5. Cosmetics which color the urine should not be used e.g. *Henna* applied to the skin and nails sometimes color the urine.
6. Diuretics which expel some specific material such as phlegm bile should not be taken.
7. Undue mental and physical exertions should be avoided as these too color the urine e.g. fasting, lack of sleep, fatigue, hunger and outbursts of anger make the urine red or yellow. Coitus gives a marked oily appearance to urine. Vomiting, diarrhea and polyuria also change its color and density.
8. Urine should not be kept standing for more than six hours as it then become useless for examination. After some time the color begins to change and the sediment gets dispersed; this makes the urine dense and turbid.
9. The sample should be of the whole urine collected in a wide mouthed bottle without any spilling.
10. Examination should not be carried out at once but after the urine has been allowed to settle for sometime.
11. Care should be taken to avoid undue exposure of the urine to sun and air. Exposure to the sun tends to produce fermentation and cold air makes the urine so dense that it fails to yield even the usual deposit appearing after normal digestion and decoction.
12. The urine glass must be thoroughly washed before use.
13. The glass should be clear and color less.
14. The specimen should be examined from both near and far. Urine looks dense when examined from near but clear if viewed from a distance.

15. The urine sample should be protected from exposure to heat or cold.
16. Urine should be examined in good light but not in direct light as its observation would then be difficult.²

INSPECTION

The points to be noted about the urine:

1. Color (*Laun*)
2. Density (*Qiwam*)
3. Turbidity or transparency (*Kadurat, Safa*)
4. Sediment (*Rasub*)
5. Quantity (*Kammia*)
6. Odor (*Ra'eha*)
7. Froth (*Zubdah*)

Density refers to the thickness and thinness of urine, Density is different from the turbidity and transparency of urine. Thick urine may be clear like the egg white or olive oil. Sometimes it is thin and yet looks turbid like water. Urine becomes turbid from the suspension of dark colored particles. Transparency (*Safa*) is the opposite of turbidity (*Kadurat*). Turbidity differs from sediment in that the particles are intimately mixed with urine while the sediment is quite distinct and separate from liquid part of urine. The difference between turbidity and simple coloration is of a similar nature. Color is the result of dissolved particles while turbidity is due to suspended particles.³

I. (*Laun*) Color of the urine

By color it is meant the various shades observed by the unaided eye, i.e. white, black and the intermediate shades.

1. **Yellow (*Asfar*):** This color may be of various shades such as (*Tibni*) straw color, (*Utruji*) citron yellow, (*Naranji*) orange, (*Nari*) flame red, and (*Zafran*) saffron. Various shades of yellow except citron indicate some degree of heat, over activity, pain, starvation or insufficient fluids, while citron indicates moderation.
2. **Red (*Ahmar*):** It has four shades; *Ash-hab* (reddish yellow), *Wardi* (Rose like), *Alqani* (Vermillion), and *Al-aqtqm* (Smoky). Red and thin denotes that there is sufficient maturation to give it the characteristic color but not enough to give it the proper consistency.

In case of jaundice urine is often so red that it turns dark and stains the linen so deeply

yellow that the color is not easily washed out; in such cases the prognosis is good provided the urine is passed freely because body is getting rid of harmful fluids.

3. **Green (Akhzar):** The color of urine may be: (*Fastaqi*) pistachio green, (*Zanjari*) verdigris-green, Emerald-green, (*Asmanjun*) sky-green, and (*Kuras*) leek-green. All shades of green indicate cold temperament except the verdigris-green and leek-green which denote extreme combustion (*Ihtiraq*).
4. **Dark urine (Aswad):** This results either from the combustion of bile into *Sauda* (black bile) or from the combustion of blood or due to the coldness or due to motion and excretion of *sauda* or due to ingestion of some coloring matter.

Differential Diagnosis

- **Signs of combustion (Ihtiraq):** When urine is dark from excessive combustion, it points to heat and combustion in the body, history of yellow or red urine, there may be irregular and unstable suspension of particles and color of urine is dark or yellow rather than pure dark.
- **Signs of coldness (Baruda):** If the urine is dark from severe cold there is history of passing greenish or bluish urine, the urinary sediment is scanty, relatively coarse and well settled at the bottom and urine is of pure dark color. Thus, dark urine with a strong smell points to predominance of heat while a faint odor indicates a cold temperament.
- **Signs of vitality failure:** When the urine is dark from failure of innate heat (metabolic activity), there is weakness of bodily faculties. ⁴

Greater the turbidity worse is the prognosis and clearer the urine more favorable is the prognosis. All aspects of the case should be considered before offering a prognosis.

5. White urine (Abyadh):

It has two meanings.

- 1) *Abyadh Mushif* (White and transparent urine). An absolutely clear object is always colorless. This type of urine denotes coldness of temperament and defective maturation
- 2) *Abyadh Haqiqi*. Urine may be absolutely white and opaque like milk. It indicates the presence of phlegm, real white urine is always dense.

White urine is of the following seven varieties:-

- *Mukhati* (Mucoid) urine which contains immature phlegm
- *Dasami* (Fatty) urine which points to dissolution of fat derived from tissues

- *Ahaali* (Waxy) urine which contains phlegm from the actual or threatened dissolution of tissues
- *Faqaa'ie* (Champagne-like) urine, when it is mixed with pus it is due to ulceration of the urinary tract. When there is no pus, it means the presence of partially matured phlegm or stone in the bladder.
- *Manvi* (Semen-like) urine is passed during crisis due to phlegmatic swellings or in visceral and serous fluid diseases. When this type of urine is passed in the early stage of disease and not at the time of crisis, it heralds the onset of apoplexy or paralysis.
- *Rasaasi* (Lead white) or greenish white urine without any deposit is a grave sign.
- *Labani* (Milky) urine passed in the course of an acute fever is a fatal sign; it indicates diversion of bile either towards the inflamed organ or towards the bowels. In a healthy person persistently white urine is a sign of incomplete maturation.⁵

Urine turns red in chronic diseases because severe pain diverts the bile towards the urine as in cold colic. Obstruction in the duct between the gall-bladder and intestine due to the excess of phlegm diverts the bile towards the kidneys for excretion in the urine as in the cold colic.

Urine is like of raw meat washings (*baul ghusali*) due to weakness and inability of liver to separate the fluid from blood as in 'cold' ascites and liver diseases. Sometimes phlegmatic color changes in the vessel due to the obstruction and subsequent putrefaction.

Urine often becomes slightly white after meals but when the digestion is completed it becomes high colored. In the persons who remain awake for long hours urine becomes dull white due to incomplete digestion and dispersion of *Hararat Ghareezi* (innate heat).

According to Galen red urine indicates dryness and fatigue while persistence of white and thick urine with heaviness in the loin predicts the stone formation in the kidney.⁶

Complex Colors of Urine

- Color of Raw-Meat Washings (*Ghusaali Lahami*):- This looks like the washings of fresh meat or blood-stained water. If faculties are sufficiently strong it denotes the excess of blood is so great that the system is unable to differentiate between water and blood so some watery contents of blood are excreted.
- Olive oil colors (*Zaiti*): - Olive-colored urine which is oily, scanty and foul smelling is of poor prognosis, particularly if it looks like meat-washings. This type of urine generally

appears in ascites and in serious types of colic. *Tabri* (700-780 A.D.) says olive oil color indicates the dissolution of fats from the kidney and whole body. ⁷

- Purple Color (*Arjwaani*): - This type of urine is of fatal prognosis as it points to the combustion of bile and *Sauda* with the production of abnormal humors.
- Flamer-red Color (*Ahmar*): - In this urine red color is tinged with the black. It is generally a sign of some complex fever or a fever resulting from thick humors. When darkness is seen only in the top layers of urine, is a sign of pleurisy.

II. (*Qiwam*) Density of Urine

1) ***Baul Raqeeq* (Watery Urine):** This generally shows incomplete maturation or obstruction in the blood vessels or weakness of kidneys and urinary tracts as only light and thin products are excreted and the heavier matters are left behind. Sometimes this is a result of excessive intake of fluids or excessively cold temperament with some super added dryness. It is also an indication that faculties are so weak that there is unhindered excretion of fluid. ⁷

2) ***Baul Ghaleez* (Thick Urine):** Thick urine is a sign of defective (*Nudhj*) maturation or elimination of thick mature humors as during the termination of a humeral fever or rupture of an abscess. Thick urine without sediment passed during some acute disease is a bad sign, it indicates abnormal excessive heat. According to *Tabri* (700-780 A.D.) thick and white urine points to the collection of excessive waste product. ⁸ Thick urine may be a favorable sign when it occasionally shows that digestion and maturation are proper.

3) ***Baul Motadil* (moderate Urine):** Thick as well as thin urine points to lack of maturation and are not easily excreted. *Nudhj* (Maturation) makes the urine *Mutadil* (moderate) to be excreted easily.

Urine in children: Thin urine has worse prognosis in children rather than in adults. In children urine is normally dense because their nature is moist and due to the greater requirements of nutrition for their growth and development their body absorbs more fluid. Persistent thin urine is a fatal sign in children unless the general condition and other signs are favorable.

When an apparently healthy person starts complaining pain in some organ and is continually passing thin watery urine, he is likely to have inflammation in that organ. Thus, if pain is felt in the region of kidneys it is a sign of inflammation in the kidneys. When the pain and heaviness are sensed all over the body and not in any particular organ it is sign of smallpox developing or some other systemic pustule disease. ⁹

III. (*Kadurat*) Turbidity of Urine

Turbidity results from the admixture of *Reeh* (air) with the earthy particles of liquid urine. When these three components are separated the urine becomes clear. In the examination for turbidity the following points should be noted:-

- The urine is at first clear but becomes turbid on standing it indicates that the system is trying to mature the morbid matter but has not yet succeeded fully. Sometimes this type of urine is found in wasting disease.
- Turbid at first but clears up on standing and leaves a deposit of coarse particle points to the successful maturation by the system. Clearer the urine, larger is the deposit and more rapid the sedimentation more complete would be the maturation.
- Urine remains turbid throughout, it indicates moderate disturbances
- Urine first clear but later on becomes turbid is worst condition.
- Urine with the color of raw-meat washings points to disease in the convex part of liver. If the stools are also of the same color the inflammation is likely to be one the concave side of liver, while with history of dyspnoea, dry cough or stabbing pain in the chest, there is a possibility of pleurisy having ruptured into a large blood vessel and discharged through the urine. ¹⁰
- Slightly dark turbid urine associated with pain on the left side points to the expulsion of morbid matter from the direction of spleen, pain above the umbilicus and in the upper part of abdomen points to the disease of stomach and it may involve liver and urinary tract. Turbid urine of dirty color points to the general weakness which causes exposure to cold.
- Turbid urine resembling the color of stale wine or water of gram seeds is usually observed in pregnant women and in persons suffering form chronic inflammatory conditions of internal organs. Immature phlegm is differentiated from pus by its odor. The presence of entangled threads in the urine is a sign of recent coitus. ¹¹

IV. (*Raa'cha Bauh*) Odor of urine

According to physicians urine of sick persons never has the same odor as the urine of healthy persons.

- Odorless urine, it points to either a cold temperament or excessive immaturity of humors. In acute febrile conditions, it is a sign of failing innate heat. ¹²
- Foul-smelling urine. Immature foul odors are likely as a result of putrefaction. Foul-

smelling urine in acute febrile disease without evidence of ulceration in the urinary passages is a sign of bad prognosis.

- Acidic urine points to putrefaction of cold humors by the extraneous heat. In acute conditions it is a sign of early death because it shows the failure of innate heat and domination of cold humors with extrinsic heat.
- Sweet-smelling urine suggests dominance of the sanguineous humor.
- Pungent smell denotes excess of bile while sour (acid) smell tells dominance of *Sauda* (black bile).

Continued passage of foul-smelling urine in an apparently healthy person is a sign of developing septic fever, but evidence of recovery points to the elimination of sepsis. In an acute illness, foul-smelling urine suddenly becomes odorless without improvement in the general condition; it is a sign of failing strength and excessive debility.¹³

V. (*Zubad*) Froth of Urine

Froth is due to the admixture of *Reeh* (air) with moisture in urine during micturition. Some *Reeh* is, however, already present in the urine before its voidance. This is particularly so when the bubbles of *Reeh* are large as in the case of patients suffering from excessive distension.

The points to be noted about the froth are: -

- Color: dark or orange colored froth indicates jaundice.
- Quality: bubbles being large, coarse, fine, or small. Coarse foam indicates that the eliminated matter is viscid.
- Quantity: excess of foam points to excess of *Reeh*.
- Duration: Persistence of froth shows that the eliminated matter is viscid. Persistence of the bubbles in kidney disease shows that it is likely to become chronic. Sticky urine in kidney disease is worse and shows unduly cold temperament.¹⁴

VI. (*Rasub*) Sediments of urine

Sediments are of special significance to physicians. The term 'sediment' refers not only to the deposit but also to the suspension of the material denser than urine. The nature, quality, quantity, form, position, time and admixture of sediment provide indications about the various states of the body. The color of sediment is usually the same as that of urine itself.¹⁵ These are described below:

1. *Rasub Mahmood* (Natural Sediment)

The natural and benign sediment indicates digestion and maturation being both normal. It is white in color, settles at the bottom and consists of uniform particles, smooth, round, regular, light and delicate in appearance thus resembling the sediment of rose water. The benign sediment indicates that raw materials are circulating in the system and are thus being eliminated. Sometimes the benign sediment may look like thin pus.

Difference:

- Purulent sediment: Pus is thick and heavy, settles down quickly and is easily dispersible with foul odors and follows inflammation, while benign sediments are light and easily dispersible on shaking, immature phlegm have uniform particles.
- Mucous sediment: The mucus is heavy and viscid; its particles do not aggregate or disperse so easily. If a large quantity of urine with plenty of mucus in the sediment is passed at the terminal stage of gout or sciatica, it is sign of good prognosis.
- The worse sediment is the one with the color of lentils which points to involvement of liver.

2. *Rasub Ghair Tabā'i* (Abnormal Sediments)

Ibn Sina described several varieties of abnormal sediments:

- a) *Khaarati* (Flaky) Sediment: The flaky sediment occurs as (*Karasni*) Red sediment, *Nakhali* (straw colored scales), (*Saweeqi*) Red scales like coarse particles of barley and (*Safaa'eh*) Flat scales. (*Safaa'eh*) Flat scales are large and may be white or red. According to *Tabri* (700-780 A.D.) flat scales with acute fever indicates the causative factor spread all over the body while absence of fever shows that the disease is limited to the bladder.
- b) *Lahami* (Fleshy) Sediment: Meat colored sediment generally arises from kidneys or from the breakdown of tissues elsewhere in the body.⁷ Mature urine shows that veins are normal.
- c) *Dasami* (Fatty) Sediment: A large conspicuous deposit suggests dissolution of fat from the region of kidneys while scanty and intimately mixed with the urine is derived from some remote area of the body. White particles resembling pomegranate seeds are to be regarded as being fatty discharge from the kidneys.¹⁶
- d) *Middi* (Purulent) Sediment: discharge of pus from ulceration of urinary organs and especially when the sediment is benign.
- e) *Mukhaati* (Mucoid) Sediment: This indicates the presence of some dense immature

humor either due to its large quantity in the body or because of being eliminated from urinary organs during the crisis of gout or sciatica which is followed by relief.

- f) *Sha'ri* (filamentous) Sediment: This type of sediment indicates that active heat has coagulated the exudates and converted them into fibrils. This sediment may be white or red and is generally formed in the kidneys. The fibrils are some time as long as the palm of the out stretched hand.
- g) *Shabech-Khamir* (Leaven like) Sediment: This is like a wet piece of ferment.
- h) *Ramali* (Sandy) Deposit: if the deposit is red it is likely from the kidneys otherwise from the bladder.
- i) *Ramadi* (Ashy) Sediment- This is due to change in the color of pus or mucus by prolonged stagnation, decomposition or combustion.
- j) *Alaqi* (Blood Clots like) Sediment: If a patient of splenomegaly starts passing red blood clots in urine, the spleen will begin shrinking. In case of bladder involvement there is no severe bleeding because its blood vessels are relatively few, narrow and embedded in the wall.

3. (*Kammial*) Quantity of the sediment

The quantity may be profuse or scanty. When it is profuse the causative agent is likely to a more potent one.

4. (*Wadha*) Quality of the sediment

The quality of sediment are determined by its color, odor and appearance, for example white, smoothness and evenness are healthy signs

5. (*Makaan*) Position of the sediment

Position of the sediment may be

- (*Taafi*) Floating on the top layers of urine it is called cloudy (*Ghamaam*) or
- (*Mu'allaq*) Suspended in the middle, it is better matured.

The suspended sediment with its fibrils directed downwards points to the better. The fully mature sediment settles down at the bottom, these are in the case of benign sediment. In the case of diseased sediment, the better is the lighter and directed upward especially in the case of acute fevers and so in case of phlegm or black bile (*sauda*). Lightness and floating indicate good prognosis except when it is caused by the presence of *reeh* which is not so desirable.

The worst type of the sediment remains at the bottom of the urine. The sediment rises to the top either because of excessive heat or from the presence of excessive *Reeh*. A separate and discrete type of sediment floats or sinks according to its density. In the early stage of disease, if sediment continues to float and remains suspended it is a sign of the disease ending in discharge of pus. In the case of debilitating disease, a suspended or floating type of discharge gives relief from the disease.¹⁷

6. (*Zamaan*) Rate of deposit

The more rapid is the formation of deposit the better is the prognosis because it denotes maturation.

7. (*Haiaa*) Nature of admixture

The prognosis as based on the nature of the admixture has already been described under blood and fat in the urine.

VII. Quantity of urine

- **Large quantity:** A patient of gout and arthritis passing urine in profuse quantities with heavy and sticky sediments has a good sign. The passage of large quantity of urine in case of colic is a sign of early recovery especially when the urine is also of white color and is being passed freely. Excessive urination resulting to no relief from an acute disease is a sign of the irritation or convulsions due to edema.
- **Less quantity:** A healthy person develops pain and heaviness in the lumber region and begins to pass small quantities of thin urine repeatedly; it is a sign of developing some hard swelling in the region of kidneys.
- Involuntary dribbling of urine in an acute disease points to the involvement of brain with secondary affection of nerves and muscles. In such cases if fever subsides and there are signs of recovery, it is a warning of epistaxis, mental confusion or some other brain disturbances.

Mature, Normal and Healthy Urine

Mature urine is of moderate consistency and pale-yellow in color, sediment is of benign type, white and smooth, round, light of regular shape and moderate smell. Passing of such type of urine suddenly at the height of illness shows that the disease would disappear the next day.¹³

Urine at Different age periods

During infancy urine tends to be white because of milk feeding and moisture in the nature. In childhood urine is thick, viscid and frothy. At maturity it is yellowish and of moderate density. In middle age it is pale and watery but may at times become thick from the elimination of waste matters. In old age urine is pale, watery and of low density. If it becomes dense, it points to stone formation.

Urine of men and women

In women the urine is always more white, dull, thick and turbid than in men. This is because in women there is more excretory matter, digestion is weak and passages are wider. Moreover their urine tends to be mixed with secretions from the womb. The male urine on shaking becomes turbid at the top while this is not the case with the female urine. After coitus the male urine shows the presence of inter-wined threads.¹⁹

Urine in different conditions and diseases at a glance:

Colors of urine

Straw color urine (<i>Tibni</i>)	Coldness of temperament.
Flame-yellow color	Acute fevers with high temperature.
Saffron-colored urine	Sign of the domination of bile
Smoky urine	Excess of blood humor.
<i>Ahmar</i>	Dominance of blood or some hot and hemorrhagic diseases.
Pale-white or slightly reddish urine in jaundice	Danger of developing ascites.
During starvation	Urine is bright and high-colored.
(<i>Fastaq</i>) pistachio green	cold temperament
(<i>Zanjaari</i>) verdigris-green after strenuous exercise	Sign of spasms.
Sky-green color of urine	Sign of severe cold or it is a sign of poisoning.
Dark urine	critical evacuation of dark poisonous matter such as at the termination of quartan fever, resolution of splenic diseases and fevers due to <i>sauda</i> , due to retention of menstrual periods and on being relieved

	of the obstructed bleeding of piles, especially when a diuretic or and emmenagogue has been taken.
Dark urine in an acute illness	Destruction of humors due to excess of heat (metabolic activity).
Dark urine of foul odor in fever with small quantity	Warning of headache or some other brain disturbances.
Dark urine in fatigue or after exertion	Sign of developing spasms.
Color of Raw-Meat Washings (<i>Ghusaali Lahami</i>)	Weakness of liver, digestion tends to be poor and the general vitality is low.
Olive oil color	The dissolution of fats from the kidney & whole body.
<i>Raqeeq</i> (watery) Urine in acute disease	Sign of poor digestion and incomplete maturation.
<i>Ghaleez</i> (Thick urine)	Elimination of waste products in a crisis or from the discharge of pus from an abscess in the urinary passages.
Turbid urine	Weakness and failure of innate heat.
Thick urine with free flow of larger quantities	Recovery from paralysis or such other conditions.
Thick urine without uniformity of color and consistency	Crisis of splenic diseases and irregular types of fevers.
Thick urine with deposit of oily sediment	Presence of stone [in the bladder].
Thick turbid urine	Rupture of an abscess, may have the previous history of foul smelling pus or history of inflammation and ulceration in kidneys, bladder, liver, or chest or signs pointing to the rupture of an abscess.
Foul-smelling urine with signs of normal maturation	Ulceration in the urinary tract associated with some other symptoms also.

Sediments of urine

<i>(Karasni)</i> Red sediment	Destruction of liver substance, or burnt blood but occasionally they come from the kidneys then the particles are firm, fleshy and yellow while scales from the liver are always dark.
White (<i>Safa'eh</i>) Flat sediments	Ulceration or erosion of bladder
Red (<i>Safa'eh</i>) Flat sediments	Erosion of the kidneys.
<i>Nakhali</i> (straw colored) scales	Inflammation of the bladder or general wasting of the body. In case of bladder, there is pain and irritation at the root of penis it is foul-smelling with history of pus in the urine.
<i>(Saweeq)</i> Red scales like coarse particles of barley	Combustion of the blood, white scales commonly result from wasting and erosion of tissues. Dark scales show excessive destruction of blood as in the diseases of spleen.
<i>(Dasami)</i> Fatty Sediment	Dissolution of solid and liquid fat as well as flesh.
<i>(Mukhati)</i> Mucoïd Sediment	Presence of some dense immature humor or excess of cold in the temperament of kidneys.
<i>(Shabeeh-Khamir)</i> Sediment like a wet piece of ferment	Weakness of stomach and intestines, impairment of digestion or after taking milk or eating cheese.
<i>(Ramali)</i> Sandy Deposit	stone formation or stone disintegration
<i>(Alaqi)</i> Sediment of Blood Clots	weakness of the liver if stuck to each other, less sticky points to ulceration or injury of the urinary tract
Dark colored sediment	Excessive burning of blood when only the sediment is dark but not the urine, it is not such a bad sign.
Red sediment	Presence of blood or impaired digestion.
Yellow color sediment	Innate heat is strong but only in proportion to the gravity of illness.
Mucoïd sediment	Faulty or deficient maturation.
Rough and irregular sediments	Weak digestion and flatulence.

Quantity of urine

Scanty urine	Impairment of vitality, in spite of adequate fluid intake it is likely to be due to excessive expiration, diarrhea impending dropsy.
or	
Polyuria	Some wasting disease or elimination of liquefied wastes. Differentiation is made by estimating the strength of the body.

Urine in different Conditions

During pregnancy	Urine is clear but it has a faint cloud at the top. Occasionally the urine has the color of chick-pea-water or water with gelatin dissolved and thus faintly bluish yellow. The upper layer of urine shows a thin cloud. The cloud in the urine is somewhat like a piece of ginned cotton floating in the middle. The urine frequently shows small characteristic granule moving up and down.
Early pregnancy	Urine is bluish and no turbidity on shaking, if urine is reddish and on shaking becomes turbid the pregnancy is likely to be in an advanced stage.
In the puerperium	Urine becomes almost jet black like soot or black ink.
Headache	Thick and (<i>utrajji</i>) citron yellow
Paralysis	Thick, white, turbid and immature urine
Acute pleurisy	Red urine with little amount
Inflammation of spleen	Dark urine
Inflammation of kidney	Red or dark urine
Diabetes mellitus	Large quantity of yellow urine
Calculus in urinary bladder	Thin, white or dark urine.

CONCLUSION

It is clear from above description of urine in Unani system of medicine that information on different conditions or diseases and their prognosis which is very much useful to physician should be elaborated further in the light of modern diagnostic sciences. The knowledge about urine such as its quantity, color, sediments etc. are must in the management of several diseases. Hence there is need for further research in these aspects for the benefit of system as well as suffering people.

REFERENCES:

1. Ibn-e-Sina, 'Al-Qanoon fit-Tib' Arabic, vol. i, Nami Press, Lucknow, India. 1906, p.135-146
2. Ibid.
3. Ibid.
4. Kausar Chandpuri, 'Mujiz Al-Qanun, urdu translation, Taraqqi Urdu Beuro, New Delhi. India. 1988, p. 114-120
5. Tabri, Ali bin Rabban, 'Firdaus al-Hikmat' Faisal Publications, Darya ganj, New Delhi, India, 2002, p. 320-325
6. Ibid.
7. Ibn-e-Sina, 'Al-Qanoon fit-Tib' Arabic, vol. i, Nami Press, Lucknow, India. 1906, p.135-146
8. Tabri, Ali bin Rabban, 'Firdaus al-Hikmat' Faisal Publications, Darya ganj, New Delhi, India, 2002, p. 320-325
9. Razi, Mohammad ibn Zakaria, 'Kitab-Al-Havi Fi al-Tib' (Arabic), vol. 19, Daeratul Marif Usmania, Hyderabad. India. 1968, p. 58-78
10. Shah, H. Mazhar, 'The Canon of Medicine by Avicenna, Naved Clinic, Karachi, Pakistan. 1966, p. 255-270
11. Ibid.
12. Majusi, Ali Ibn Abbas, 1889, Kamil al-Sana'a (Arabic), Nami Press, Lucknow, India. p.235-246
13. Razi, Mohammad ibn Zakaria, 'Kitab-Al-Havi Fi al-Tib' (Arabic), vol. 19, Daeratul Marif Usmania, Hyderabad. India. 1968, p. 58-78

14. Kirmani, Nafees bin Evadh, 'Kulliat Nafeesi, Yousufi press, Lucknow, India. 1910, p. 194-212
15. Zillur Rahman, S., 'Imul Amraz, Tijara house, Dodpur Aligarh. India. 1990, p. 20-30
16. Ibn-e-Sina, 'Al-Qanoon fit-Tib' Arabic, vol. i, Nami Press, Lucknow, India. 1906, p.135-146
17. Ibid.
18. Ibid.
19. Ibid.

सारांश

प्राचीन यूनानी साहित्य में मूत्र का वर्णन, विश्लेषण एवं निदान – एक समीक्षा

अशफाक अहमद एवं अला नारायण

यूनानी धारणा के अनुसार इस्तिफराग (उत्सर्जन) असबाब सित्त जरूरिया (छह महत्वपूर्ण उद्येश्य) में से एक है। इस्तिफराग क अर्थ यह है कि शरीर के भीतर उत्पादित पदार्थ जिनका अवरोधन शरीर के हेतु हानिकरक है उन्हे बाहर निकाला जाये, जैसे मल, मूत्र, पसीना, इत्यादि जो दैनिक गतिविधियों के कारण शरीर में नियत रूप से उपत्न होते रहते है। इस्तिफराग द्वार शरीर के मल मुत्र का उत्सर्जन होता रहता हे। यूनानी पद्धति में भिन्न रोगों के निदान हेतु तीन महत्वपूर्ण प्रक्रिया का उल्लेख किया गया हे, नाडीस्पन्दन प्रीक्षण, मल प्रीक्षण एवं मुत्र प्रीक्षण। प्राचीन यूनानी चिकित्सालयों में अनेक रोगों के निदान हेतु मुत्र प्रीक्षण एक पूर्ण अनिवर्य रीति थी प्राचीन यूनानी चिकित्सकों तथा विद्वानों ने भिन्न रोगों के निदान एवं पूर्वानुमान के लिये मुत्र प्रीक्षण का अपनी पुस्तकों में विस्तृत वर्णन किया है, जैसे तबरी, राजी, इब्न सीना इत्यादि ने मूत्र प्रीक्षण के मूल सिद्धान्त का उल्लेख किय हे। उदाहरणतः मूत्र का रंग, घनत्व, अवसाद परिमाण, गंदलापन अथवा परादर्शी, गन्ध, झाग, इत्यादि। इस लेख में एक समीक्षा प्रदान की गई है।