WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 11, Issue 3, 1909-1918. Review Article ISSN 2277–

A REVIEW OF DISEASE *UDARA VYADHI* ALONG WITH IT'S MODERN PROSPECTIVE

Namrata Dahake*[1], Santosh Girbide[2], Jyoti Meghadambar[3], Sandeep Kale[4] and Milind Kamble[5] and Prachi Walde[6]

[1]P.G. Scholar, Department of Rognidan and Vikruti Vigyan, R.A. Podar Medical College, Worli, Mumbai, 400018, Maharashtra.

[2]Professor and HOD, Department of Rognidan and Vikruti Vigyan, R. A. Podar Medical College, Worli, Mumbai, 400018, Maharashtra.

[3]Associate Professor, Department of Rognidan and Vikruti Vigyan, R. A. Podar Medical College, Worli, Mumbai, 400018, Maharashtra.

[4]Assistant Professor, Department of Rognidan and Vikruti Vigyan, R.A. Podar Medical College, Worli, Mumbai, 400018, Maharashtra.

[5]Assistant Professor, Department of Rognidan and Vikruti Vigyan, Government Ayurvedic College, Jalgaon, 425001, Maharashtra.

[6]P.G. Scholar, Department of Swasthvritta, R.A. Podar Medical College, Worli, Mumbai, 400018, Maharashtra.

Article Received on
16 Jan. 2022,

Revised on 06 Feb. 2022,
Accepted on 27 Feb. 2022

DOI: 10.20959/wjpr20223-23314

***Corresponding Author**
Dr. Namrata Dahake
P.G. Scholar, Department of Rognidan and Vikruti Vigyan, R.A. Podar Medical College, Worli, Mumbai, 400018, Maharashtra.

ABSTRACT

The exact meaning of the word *udara* is Abdomen. In modern science *Udara* compared with Ascites but in *Ayurveda* is not only limited to ascites, accumulation of fluid in the peritoneal cavity but also includes gaseous distension, hepato-spleenomegaly of varied etiology, intestinal obstruction and intestinal perforation. Generalized abdominal distension is the presenting feature in all type of *Udara*. The causes of abdominal swelling includes 6F: flatus, fat, fluid, foetus, feces or a fatal growth (often a neoplasm). *Samanavata*, *Apanavata*, *Pachak pitta*, *Ranjak pitta* and *Kledaka Kapha* are situated in the abdomen. *Mandagni* is the main cause of *Udararoga*. The ultimate outcome of all *Udara roga* is *Jalodara* (Ascites). Long standing *mandagni*, *ajirna* are the reasons behind it. Vitiated *Vata* get localized in the skin and the muscle as well as internal lining of abdomen, hence it is called as *Udara*. This causes

vitiation of *Prana*, *agni* & *Apana* and obstruction of the upward and downward channels of circulation. It also explains in detail the *Ayurvedic* and modern point of view as well as describing abdominal examination, lab investigation.

KEYWORDS: *Udara*, abdominal distension.

INTRODUCTION

"Roga Sarvapi Mandagni Suturaudaranich". For improper digestion of ingested food which leads to *Udara roga* cause by *Mandagni*. The generalized distension or enlargement of abdomen of varied etiology denotes *Udara roga*. It is mentioned in *Ashtamahagada*. *Agni dosha* and *mala vriddhi* causes vitiation of *Prana*, *agni* & *Apana* and obstruction of the upward and downward channels of circulation. The vitiated *doshas* get localized between skin and muscle tissue and causes extensive distension of the abdomen resulting in *Udara roga*.[1]

Hetu

Consumption of food that are excessively hot in property, salty food, excessive intake of food containing solution of *Kshara* (alkali obtained from ash of herb), food that causing burning sensation, sour food, *garavish* (poison or poison synthesized by combination of nontoxic substance), erroneous dietary management following *shodhana* treatment, food having *ruksha* property, *viruddha ahara*, unhealthy food, emaciation due to *splenic* enlargement, emaciation due to *arsha* (mass per rectum), emaciation due to *grahani roga*, improper administration of *panchakarma*, ignorance of persistent illness without treatment, dryness of the body, with holding the naturally manifesting urges, morbidity of body channels, illness of *ama* (undigested food), psychological irritation, excessive consumption of food, obstruction of the ano-rectal canal by the *arsha*, impaction of hair within the lumen of intestines, impaction of hardened stools within the intestine, perforation of intestine, excessive accumulation of morbidity, indulging in sinful activities these causes impairment of *jatharagni*.[2]

Purvaroopa (Premonitary symptoms)

Loss of appetite, delay digestion of sweet, greasy and heavy food, food consumed causing burning sensation, inability to appreciate the digestion and indigestion of the food, intolerance to over eating, slight edema in the feet, constant reduction in the physical strength, breathlessness, even on slight exertion, abdominal distension due to accumulation of

fecal matter resulting due to dryness or *udavarta* abnormal upward course of *vata*), abdominal pain, fullness of the abdominal, distension of stomach even after small meals, appearance of distended veins and loss of normal skin folds are the premonitory symptoms of *udara roga*.[3]

***Samanya lakshana* (General symptoms)**

Distension and gurgling sound in the abdomen, edema of hands and feet, impaired digestion, smooth shiny cheeks and emaciation.[4]

***Samprapti* (Pathophysiology)[5]**

Dosh: Vata- Praan,Agni(samaan),Apaan

Dushya-Ras Dhatu

Srotas sudhti- Ambuwah and swedwah srotas.

Hetu Sevan

↓

Agnimandya- vata prakop

↓

Amotpatti

↓

Udaka vaha and swedavaha strotasavrodha

↓

Jatharagni, apan vayu, Prana vayu Dushti

↓

Viguanavayu dwara upsnehan nyayane

↓

Annaras Sravan

↓

Annaras sanchay

↓

Udar Rog

*Prakara (*Types*) of Udara*[6]

1. *Vatodara* (Accumulation of flatus)
2. *Pittodara* (Hepatic causes)
3. *Kaphodara* (Renal causes),
4. *Sannipatodara*(exudative causes)
5. *Pleehodara/Yakritodara* (enlargement of spleen and liver)

6. *Baddhagudodara* (Intestinal obstruction)
7. *Kshatodara* (Intestinal perforation)
8. *Jalodara* (Ascitis-Fluid in peritoneal cavity).

Progressive stages of *Jalodara* are described namely *Ajatodaka*, *Piccha* and *Jatodaka*.

***Vatodara* (Accumulation of Flatus):** Aggravated *Vata* causes low *agni*, formation of *ama*, obstruction in channels and produce symptoms like the abdomen gets swollen and there is edema on hands, feet and scrotum also. It is associated with indigestion, gas in abdomen, abdominal pain, sudden increase or decrease in the size of abdominal edema, pain in the joints, dry cough, obstruction to the urine and flatus, prominence of veins on the abdomen. Some patients with Irritable Bowel Syndrome (IBS), cardiac pain, blotting.[7]

***Pittodara* (Hepatic Causes):** Aggravated *Pitta* with *Vata* and *Kapha* creates obstruction in channels and lowers *agni*. Hence, there is burning sensation, fever, thirst, fainting, diarrhoea, giddiness, pungent taste in mouth, and appearance of green-yellow tinge in nails, eyes, face, skin, urine and feces. There is prominence of blue, yellow, green or coppery lines on the abdomen and is soft to touch and prone for inflammation. If not treated in time it gets easily suppurated. Cirrhosis of the liver is the most common cause of ascites. Liver failure and portal hypertension in cirrhosis cause general sodium and water retention in the body, and localization of fluid in the peritoneum due to the high venous pressure in the mesenteric circulation. Spontaneous bacterial peritonitis (SBP) usually presents suddenly with abdominal pain, rebound tenderness, absent bowel sounds and fever in a patients of ascites.[7]

***Kaphodara* (Renal Causes):** Aggravated *Kapha* obstructs channels and vitiates *Vata*. There is heaviness, anorexia, indigestion, bodyache, numbness, swelling on the hands, feet, thighs and scrotum; and loss of appetite is present. There is also nausea, excess sleep, cough, dyspnoea, and whiteness on the nails, eyes, face, skin, urine and feces with prominence of whitish streaks on the abdomen. When substantial amount of protein are lost in the urine then secondary phenomena occurs constitute the nephritic syndrome. Oedema occur predominantly in the lower limbs in adults, extending to the genitalia and lower abdomen.[7]

***Sannipatodara* (Abdominal Distension Due To Exudative Causes):** This is due to vitiation of all *doshas*. Person suffers from vertigo, fainting, debility and burning sensation all over the body. *Dushi visha* (slowpoisoning) has also been considered as its cause. It is a sign of

peritoneal carcinomatos is the presence of malignant cells in the peritoneal cavity. Pancreatic and uterine extra abdominal tumors originating from lymphoma, lung and breast; and a small number of unknown primary tumor.[7]

***Yakritodara* and *Plihodara*:** The etiopathogenesis of *yakritodara* and *plihodara* are similar except the anatomical location. The spleen enlarges slowly and becomes stony hard. If neglected this condition gets developed with fluid in abdomen. Such person becomes weak, and has anorexia, indigestion, retention of urine and feces, thirst, body-ache, mild fever, pain in small joints, gas in the intestines, pain in the abdomen and reddish tinge gets developed on the abdomen. *Yakrutodara* and *pleehodara* show symptoms like *dourbalya* (debility), *arochaka* (lack of taste in the mouth), *avipaka*(indigestion), *varchagraha* (Constipation), *mutragraha*(Retention of urine), *tamapravesha*(Darkness in front of the eyes), *pipasa* (excessive thirst), *angamardha*(malaise), *chardi* (vomiting), *moorcha* (Transient loss of consciousness), *angasada* (Tiredness of body parts), *kasa* (cough), *swasa*(dyspnoea), *mridu jwara* (mild fever), *anaha* (flatulence), *agninasha*(loss of appetite),*karshya* (emaciation), *asyavairasa* (abnormal taste in the mouth), *parvabheda*(pain in joint of the, *Koshtashoola*(abdominal pain), *Vatashoola* (abdominal pain due to morbid vata), *Udara arunavarana* (reddish coloration of the abdomen) *Udara vivarna*,(discoloration of the abdomen) *udara neelaharitaharidraraji* (appearance of network of veins having blue, greenor yellow color).[7]

***Baddhagudodara*: (Intestinal Obstruction):** The obstruction in the intestines can be due to anything, e.g.*ama, Kapha, apana Vata*, hair, food etc. Such person develops thirst, burning sensation, fever, dryness of mouth, weakness in thighs, cough, debility, anorexia, indigestion, retention of urine and feces, tympanitis, vomiting, sneezing and pain in head, umbilicus and anus. The abdomen gets swollen mostly cylindrical type and this swelling is above the umbilicus.[7]

***Chidrodara/Kshatodara* (Intestinal Perforation)**

Perforation of intestines is serious condition and requires immediate attention and surgical treatment. Such person may show symptoms like dyspnoea, distention of abdomen, fainting and loss of consciousness. The intestine gets perforated because of intake of sand, grass, pieces of wood, bone or nails along with food clinically characterized by abdominal distension below the umbilical region. Intestinal perforation occurs when a hole forms all the way through small intestine or large intestine due to this number of different diseases like

appendicitis, diverticulitis. The symptoms of perforation are severe abdominal pain, fever, nausea, vomiting, rectal bleeding etc.[7]

Jalodara/ Udakodara: Aggravated *Vata* gets localized in *kloma*, vitiates *kapha* causes obstruction in channels, lower *agni* and hence accumulation of fluid take place. Such person has no desire for the food suffers from thirst, dyspnoea, cough, debility and his becomes full with fluid. Ultimately all *Udara rogas* may ends up in *Jalodara*. If proper treatment measures are not done or *pradnyaparadha* is continued, *kalaantarena* by *paripaka* all types *udara* will progress to *jalodara* where the manifestation of *jalodara* as a *paratantra vyadhi.*

Jalodara is manifested in 3 stages i.e. *Ajatodaka avasta*(stage where water accumulation doesn't take place in abdomen), *Pichottpathi* avastha (accumulation of asticky fluid) and *Jatodaka avastha* (when the dosha get matured become liquefied and collected). In fact these three are the progressive conditions of *srotorodha/srotovaigunya* in *Jalodara*.[7]

Clinical Diagnosis

Udarda is *vadhi* of *Udakavaha* and *Swedavaha srotasa.*

Udakavaha Srotasa Pariksha[8]

- *Darshana: Vata- Jivha, Taalu, Oustha, Kantha, Kloma Shosha.*
- *Prashna: Pitta-Ati Trishna.*
- *Sparshana:Talu, Jivha, Netra, Twak.*

  Swedavaha Srotasa[8]
- *Darshana: Vata-Aswedana, Swedanasa, Romachyuti, Twak Sputana.*

Pitta-Atiswedana.

- *Sparshana:Vata-Parushya, Sparsha Vaigunya.*

Kapha-Slakshnangataa.

- *Prashna: Pitta-Paridaha, Twaka Dourgandhya.*

Kapha-Lomaharsha, Kandu.

Modern Prospective

Percussion:-can also be Used for Detecting Fluid in the Abdomen by the Following Methods[9]

1. Shifting Dullness

With the patient lying supine, percuss laterally from the midline keeping the fingers in the longitudinal axis until dullness is detected. In normal individuals, flanks are resonant. In patients with moderate ascites, flanks are dull (except in loculated ascites or when there are adherent loops of bowel). On shifting the patient to one side, either to the right or left lateral decubitus position, the previous dull area over the flank becomes resonant. This is due to the shift of fluid in the peritoneal cavity. This shift of fluid can be doubly confirmed by a rise in the level of dullness in the opposite flank. About 1000 ml of fluid should be present to elicit the is sign.

2. Fluid Thrill

Patients lies on his back. Place one hand over the lumbar region of one side, get an assistant or the patient himself to put the side of his hand firmly in the midline of the abdomen and then flick or tap gently the lumbar region. A fluid thrill or wave is felt as a definite and unmistakable impulse by the detecting hand held flat in the opposite lumbar region. The purpose of keeping the assistant's hand is to dampen any impulse that may be transmitted through the fat of the abdominal wall. This is felt when there is a large amount of fluid under tension, i.e. > 2000 ml.

Absence of fluid thrill and shifting dullness or anyof them, does not exclude diagnosis of ascites.

3. Puddle's Sign

This sign is elicited to detect the presence of minimal fluid when flanks are resonant. This can be elicited either by percussion or by auscul-to- percussion. It can detect as little as 120 ml of ascitic fluid. Patient is to lie in the prone position for 5 minutes and goes on all 4 limbs (arm-knee position) so that the middle portion of abdomen is dependent and his back is horizontal. New percuss around umbilicus and elicit dullness. Previously resonant area becomes dull if minimal fluid is present. Place a stethoscope over umbilical region and scratch the abdominal wall from periphery towards umbilicus. A change in the quality of sound is perceived while crossing the fluid column. This sign is false positive in massive splenomegaly and distended bladder.

USG Abdomen[9]

It can detect as little as 30 ml of fluid.

Grading of Ascites

- + Detectable only by careful examination.
- ++ Easily detecta detectable but of relatively small volume.+++ Obvious ascites but not tense.
- ++++ Tense ascites.

Pathological Investigation[10]

'Serum-ascites albumin gradient' (SAAG)

In ascites, routine transudate-exudate system is no longer used and it is prudent to calculate SAAG as:

(A) It is the difference of albumin between serum and ascitic fluid, from samples taken at the same time. If the 'serum albumin' minus ‘ascitic fluid albumin' (gradient) is equal to or greater than 1.1 g/dL, it suggests underlying portal hypertension. Other than cirrhosis of liver SAAG 21.1 g/dL is a feature of CCF, Budd Chiari syndrome, portal vein thrombosis, myxoedema and constrictive pericarditis. The gradient is less than 1.1 g/dlL, it suggests malignant ascites, tuberculous ascites, Pyogenic peritonitis, pancreatic ascites pressure or nephrotic syndrome.

SAAG is based on oncotic-hydrostatic balance and the gradient directly correlates with portal pressure SAAG 1.1 g/dL and fluid protein <3 g/dL are usually suggestive or portal hypertension.

Abdominal paracentesis

Paracentesis literally means removal of fluid or gas. Actually this is divided into diagnostic and therapeutic indication. For diagnostic purpose paracentesis (approximately 20-50 mL fluid is required).

USG of abdomen helps in the diagnosis of aetiology of ascites

USG diagnoses Presence of free fluid in the abdomen and also detect lymphoma, tuberculosis, cirrhosis, cyst etc.

Investigation[10]

1. Routine blood examination:- Hb, TC, DC, ESR, Neutrophilia indicates infection.
2. Urine blood examination-High albumin in urine is found in nephritic syndrome.
3. Stool for occult blood- For abdominal malignancy and cirrhosis of liver

4. Serum cholesterol- It is increased in nephritic syndrome and myxoedema, diminished in cirrhosis.
5. Plasma proteins-Low albumin level is seen in nephrotic syndrome, cirrhosis of liver, hypoproteinaemia with anaemia and protein losing enteropathy.
6. X-ray of the abdomen in erect posture- Ground glass opacity ie diffuse abdominal haziness with loss of psoas margins in ascites (minimally requires 800ml fluid) not much informative.
7. Ultrasonography of the abdomen is the best means to confirm ascites: CT scan of the abdomen provides similar information. USG can detect as little as 30 mL of ascitic fluid,
8. Examination of ascitic fluid (physical, biochemical, cytological and bacteriological study (detection of AFB, micobacterial C/S, and exfoliative cytology for malignant cells)) - Gram's stain, acid-fast stains and culture should be performed. SAAG should be determined.
9. Biopsy of Virchow's gland or any palpable lymph node -Informative in tuberculosis, lymphoma and malignancy.
10. Liver function tests (bilirubin, AST, ALT, alkaline phosphatase, albumin, globulin etc).
11. Laparoscopy (peritoneoscopy) - May reveal peritoneal deposits of tuberculosis or malignancy.
12. Liver biopsy (cirrhosis/malignancy) or needle biopsy of peritoneum (in exudative ascites especially).
13. Laparotomy.

Routine investigations like chest X-ray (pulmonary tuberculosis, cardiomegaly from CCF), ECG and echocardiography (CCF, pericardial effusion, constrictive pericarditis) should also be performed.

REFERENCES

1. Acharya YT, Charaka Samhita, Chikitsasthana, Udara chikitsa, 13/9-11, Reprint edition chaukhambha Orientalia, Varanasi, 2007; 491. 2. Acharya YT, Charaka Samhita, Chikitsasth.
2. Ravi Dutta Tripathi, Charakasamhita volume 2, Chikitsasthana, Adhyaya 13, Shlock 15, Chaukhamba Sanskrit pratisthan, Delhi, 293.
3. Ravi Dutta Tripathi, Charakasamhita volume 2, Chikitsasthana, Adhyaya 13, Shlock 16-19, Chaukhamba Sanskrit pratisthan, Delhi, 293.

4. Ravi Dutta Tripathi, Charakasamhita volume 2, Chikitsasthana, Adhyaya 13, Shlock 21, Chaukhamba Sanskrit pratisthan, Delhi, 294.
5. Ravi Dutta Tripathi, Charakasamhita volume 2, Chikitsasthana, Adhyaya 13, Shlock 20, Chaukhamba Sanskrit pratisthan, Delhi, 293.
6. Ravi Dutta Tripathi, Charakasamhita volume 2, Chikitsasthana, Adhyaya 13, Shlock 22, Chaukhamba Sanskrit pratisthan, Delhi, 294.
7. Dr. Subhash Rande, Kychikitsa, Paper 2, Chapter 6, Udara, Chaukhamba Sanskrit Pratisthana, Delhi, 2006; 294-295.
8. M.S. Baghel, WHO Scoring of ayurveda, Developing guidline for clinical research methodology in ayurveda, Gujarat ayurved university Jamnagar 361008, India 2011.
9. www.sho.in/WHOTCM2005
10. R. Alagappan, Manual of Practical Medicine, Abdomen, Jaypee Brothers Medical Publishers, Fourth Edition, 280-282
11. Arup Kumar Kundu, Bedside Clinics in Medicine, Part 2, CBS Publishers and Disteibutors Pvt Ltd New Delhi, 6'th Edition, 332,334.