Study Of Ruddhva Swedaambuvahini In Jalodar W.S.R. To Sodium And Water Retention In Ascites

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Abstract:

"रोगःसर्वःअष्टधि मन्देजःग्री सुतरायुद्रायिनः" (श.ह.नि.१ २/१)

All diseases are produced by Extreme Mandagani; especially causes Udar by its extreme Ajirna, Malinanna, Malasanchaya leads to accumulation of the Doshas, they in turn get aggravated and all Stratasa especially blocked the channels of Ambuvaha & Swedavha in the upper and lower parts of the body, bring about abnormalities in the Prana (Vata), Agni, & Apan (Vata) get Apachit Aaharasa localized in between the skin and the muscles of the abdomen in the form of Dravaansha producing Udar by making the abdomen big in size.

Jalodar as per modern medicine in Ascites. Retention of sodium with its increase in plasma volume is an important factor in Ascites formation. Sodium is almost entirely absent from urine, sweat and saliva of patients with ascites. Almost all sodium ingested is incorporated with ascetic fluid and the serum sodium level is often low.

Here by literature review Swedavaha and Ambuvahastrotorodha in Udar is elaborated in the light of Ascites.

Keywords: Udar, Ruddhva Swedaambuvahini, Jalodara, Sodium-Water retention, Ascites.

Introduction

Ayurvedic term Udarvyadhi is homologous to Ascites described in modern medicine. According to Ayurveda, fluid accumulates in Abhyantar Twachya the peritoneal cavity in ascites which is same as modern medicine.

All Ashtodar are generally caused by the congregation of Doshas. In human beings different disease groups particularly the abdominal disease arise from the defect of Agni due to increase of Malas. If person indulges in foods activities during weak digestion leads to improper digestion and gradually accumulation of Doshas, which affecting Prana, Agni and Apana, and blocking upward and downward passages reaches the interspace between skin and muscle and blows up abdomen. Accumulated Doshas obstruct the Swedavaha and Ambuvahastrotas and vitiate Pran, Agni and Apana leading to the manifestation of Udarroga. (2)

One of its type is Jalodar, it has two stages. First Ajatodakawastha - where the fluid accumulation is not justified, here Vata is predominant. As Jalodar is Ashukari the Pichhawastha is not seen and immediately there is another stage Jatodakawastha, here Tridosha's are have
predominance and we can see Udakapradurbhava in Abhyantar Twachya, which leads to Sirantardhran, Udakadrutisparsha, Sankshobha.

Here Aadankarma of Prana, Pachankarma of Agni, Malavisarjanakarma of Apna get deranged which also leads to formation of Ama which is responsible for Swedavaha and Ambuvahastrotorodha (र. रो 13/55)

Ascites in the accumulation of excessive volume of fluid within the peritoneal cavity. It frequently accompanies cirrhosis and other diffuse liver diseases. The development of Ascites is always associated with heamodilution, oedema and decreased urinary output. The mechanism involved are hypoproteinaemia, portal hypertension leading to raised hydrostatic pressure, hyperaldosterosim, stimulation of renin-angiotensis mechanism promoting sodium and water retention.

Retention of sodium with its increase in plasma volume is an important factor in Ascites formation. Sodium is almost entirely absent from urine, sweat and saliva of patients with Ascites. Almost all sodium ingested is incorporated with ascetic fluid and the serum sodium level is often low. (2)

**Aim**: Study of Samprapti Ghatka Ruddhvasevedaambuvahini in Jalodara and sodium water retention mechanism in Ascites.

**Objectives:**

1. To study and compile all the references of Jalodar and Ascites from all Ayurvedic text and modern text.
2. To correlate Ruddha Swedaambuvahini in Jalodara and pathogenesis in Ascites in light of sodium-water retention.

**Review And Discussion:**

**Components of Samprapti Of UDAR are as follows** (3):

**Dosha:**

**Tridosha**

**Vata**

Prana - Aadankarma Vikriti

Apana - Visarjanakarma Vikriti

(Vatpurishsanga, Mutrasanga, Swedaavrodha)

Samana

**Pita**

Pachaka (Agnimanddya)

**Kapha**

Kledaka (Agnimanddya)
Dushya :

Dhatu ⇒ Rasa, Mamsa
Upadhatu ⇒ Tavcha, Vasa
Sharirika Mala ⇒ Mutra, Purisha, Sveda

Agni ⇒ Jatharagni, Dhatvagni

Agnidushti ⇒ Mandata "सहते नगति सौहित्यम च "(च.चि 13/16-19)

Ama ⇒ Agnijanya

Srotas ⇒ Swedavaha, Ambuvaha, Rasavaha, Mamsavaha, Annavaha

Srotodushti ⇒ Sanga, Vimargagamana

"कोष्ठाने उपस्थितै अन्नस्ति न।मूल्य्" (सू.मि.7/6)

Udbhavasthana ⇒ Amasayottha, (Kosth) Grahani Vikriti

Adhisthana ⇒ Udara, Tvaca (त्यक्त मासान्तरम्)

Vyaktasthana ⇒ Udar

Rogamarga ⇒ Kosthamarga

Swabhava ⇒ Chirakari (अछृोमाखानद)

Rogabheda ⇒ 8 types - Vatodara, Pittodara, Kaphodara, Plihodara, Sannipatodara, and Jalodara , the subsequent ones more and more difficult for treatment than the previous ones.

Ayurvedic Samprapti of JALODAR (4):

Agni becomes weak because of excessive intake of water after the administration of oleation therapy or by a person suffering from Mandagni or by an individual who is cachectic or excessively emaciated . As a result of this , Vata located in Kloma gets interrupted with Kapha and Udaka dhatu increases the quantity of that Udaka in the obstructed channels of circulation . The vitiated Kapha and Vata from their own locations assist in increasing this Udaka as a results in Jalodara .

Purvarupa and Lakshana of JALODAR (5):

Anannaakangasha (Loss of appetite), Pipasa, Gudastrava, Shula, Shwasam, Kasa, Daurbalya, Nana Varna Raji Sira Santatam (appearance of network of veins having different colours over the abdomen ) and Udaka Purna Druti Sparsha (on palpation has fluctuation like leather bag filled with water ) It is known as Udakodara.
Sweda\(^6\):  
Sweda means sweat. The Sweda described excretory product of fatty tissue in the body, by Charaka. The function of sweat is maintenance of normal wetness of the skin. Vagbhata (अ.ड.स.11/5) has described the function of sweat as “स्वेदस्य क्लेदित्रुतिः”: i.e holding up of skin excretions (kled). The root site of system of sweating is fatty tissue and hairs follicles. The causes of vitiations of this system leads to increase or decrease of sweat.

Agni\(^7\):  
Agni is the variable agent in the process of Paka (chemical action) indigested food is to be digested, absorbed & assimilated which is unavoidable for the maintenance of life & is performed by Agni. If Agni of a person is vitiated the whole metabolism in his body would be disturbed, resulting in ill health & disease, hence Agni is said to be the Mool (base of Life). Here in Ascites while forming Uadka in Aabhyantar Tavchya is by the same rule.

Kedari-Kulyanyaya\(^8\):  
In Kedari-KulyaNyaya, pattern of distribution of nutrients is analogous to distribution of water to plots in paddy fields. This analogy refers to the system of distribution of water from a river, lake or canal which branches & rebranches to supply water to the nearest as to the farthest plots under cultivation.

Salt\(^9\):  
Salt is made up of two electrically charged particles sodium and chloride also called electrolytes. In our body, sodium helps keep the right amount of water inside and outside your cells and in blood.

Sodium In Sweat\(^{10}\):  
The average male’s body contains about 75000 milligrams of sodium, the equivalent of 11 tablespoons of salt when you exercise you lose sodium via sweat. The amount of sodium in sweat average about 500mg sodium/lb sweat and ranges from 220 to 1100mg.

Sodium Retention In Ascites\(^{11}\):  
Retention of sodium with its increase in plasma volume is an important factor in Ascites formation. Sodium is almost entirely absent from urine, sweat and saliva of patients with ascites. Almost all sodium ingested is incorporated with ascetic fluid and the serum sodium level is often low.

In cirrhotic, Ascites develops after ingestion of sodium chloride, salt is retained isotonically. When salt ingestion is stopped, accumulation of fluid ceases and urine increases by amounts. (as compared to weight gain with salt ingestion.)

After paracentesis, water is retained in excess of the salt.

The sodium space of the body is increased in cirrhosis. Water retention is secondary to sodium retention, but it may be a primary factor in certain circumstances. (eg. water retaining effect after excessive vasodepressor factor. VDM ) altered renal function. In hepatic oedema and
Ascites, disturbed renal and sodium excretion is important. Two factors may be responsible eg.
1) Reduced Glomerular filtration
2) Increased tubular reabsorption of sodium and both these factors may operate in cirrhosis, the latter being more important.

**Water Retention In Ascites**

The kidney is continuously generating free water in the ascending limb of the loop of Henle by a mechanism consisting of an active reabsorption of sodium chloride without concomitant reabsorption of water. The final volume free water excretion, therefore, depends on the amount of free water reabsorbed in the more distal segment of the nephron, the convoluted distal tubule and the collecting tube. This process is mediated by ADH (Antidiuretic hormone). The decrease GFR may lead to decreased delivery of sodium chloride to the ascending limb of the loop of Henle and, therefore to an impaired generation of free water.

**Discussion:**

Physician should treat this condition immediately before the appearance of any complications & before accumulation of liquid in the abdomen. If the treatment is neglected, then the vitiated Doshas get displaced & become liquefied as result of Paripak, cause stickiness in the joints and channels of circulation & divert sweat from the external channels as result of which it moves sideways, this zigzag moving sweat adds to the quantity of water already accumulated on the abdomen. The appearance of this sticky liquid makes the abdomen round, heavy & numb. The abdomen becomes dull in percussion & soft to touch. Thereafter, the network of veins disappears during this period. The umbilical region is primarily afflicted. Thereafter water starts accumulating in the abdomen leading to excessive enlargement of the sides of abdomen, with appearance of the network of veins. On palpation physician feels as if abdomen is a leather sack filled with water.

Jalodara has two stages during first stage, water accumulation does not takes place in the abdomen & it is called Ajatodaka stage. When the vitiated Doshas get matured they become liquefied by nature. Because of the obstruction in the channels of circulation in the exterior of the body, the sweat becomes incapable of going out as it happens in normal conditions. If moves inwards as a result of sticky materials appears in the abdomen. According to some scholars, Piccha is like the scum which comes out while boiling rice. It is because of the accumulation of this sticky liquid inside the Aabhyntar Tawchya, that the physician by palpation feels the abdomen like a leather sack filled with water.

**Conclusion:**

In the patient of Udara having Shushkavaktra (dryness of mouth), Krishagatra (Emaciation of the body, weight loss), Aadhma Udar Kukshaya (distention of the abdomen & pelvis), Prashant Agni, Bala Aahara (loss of digestive fire, appetite and strength, Incapable of doing work) and breathing their last breath as Orphan needs effective Ayurvedic therapies. Here take care of vitiated Prana, Agni and Apna with obstructed the upward and downword channels of Swedavaha and Ambuvaha strotas which are responsible for Udarvridhi.
In light of modern science accumulation of ascetic fluid represents a state of total body sodium and water excess. Activated plasma renin, aldosterone and sympathetic nervous system results in renal sodium and water retention with absence of salt in sweat. So considering this as RUDDHVA SWEDAAMBUVAHINI patient should be taken care of make the Vyadhi Yapya.

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