



Review Article

A CONCEPTUAL STUDY OF RAKTAVAHA SROTAS AND ITS DISEASE

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ABSTRACT

Srotas is the channel that transports only *Dhatu* under metabolic transformation. Some authors views that *Srotas* can be interpreted as micro-vascular carrier, which specialized for exchange of the materials. The exchange of materials between Interstitial fluid and intra capillary substance move through highly specific pores which are called *Ayana*.

Number of *Srotas* are different by different Acharyas. The *Srotas* have their own *Mulasthan* or root. *Chakrapani* mentioned *Moolasthan* of *Srotas* as *Prabhavasthan* means the anatomical seat of respective *Srotas*, main seat of pathological changes, having diagnostic value or its be the focus of treatment. *Raktavahasrotas* is the *Srotas* which carry *Rakta* (blood). Its *Mulasthan* is given *Yakrit*, *Pleeha* and *Raktavahinidhamani* mentioned the Ayurvedic samhita. Due to intake of the *Vidahianna* and *Pana*, *Snigdhaaahar*, *Ushnadrava* along with exposure to sunlight and air leads to *Raktavahasrotasdusti*. Sushruta said if there is cut or piercing injury to *Mulasthan* of *Raktavahisrotas*, it causes cyanosis in the body parts, fever, burning sensation, pallor, hemorrhage and blood – shot eyes. The disease of the *Raktavahasrotas* are *Kustha*, *Visrpa*, *Pidika*, *Kamala*, *Asrgdar*, *Arubuda*, *Arsa* etc. all the skin diseases, hemolytic disease, gynecological disorders, metabolic disorders come under *Raktavahasrotas*. The treatment principle is bloodletting, purgation and fasting. Therefore *Raktavahasrotas* is related to haemopoetic system and circulatory system from its root system liver and spleen. The diseases of *Raktavahasrotas* is important to the point of diagnosis and clinical practices.

KEYWORDS: *Srotas*, *Mulasthan*. *Raktavaha Srotas*, *Raktavahini Dhamani*.

INTRODUCTION

To know a particular treatment of a disease one should have well knowledge about the anatomy and physiology of human body. Now-a-days many new medicines are discovered every day for a particular disease. Many highly sophisticated devices are discovered to detect the exact location of particular disease like M.R.I, CT-SCAN, PET SCAN, X-ray and Ultrasonography.

Ayurveda has very vividly described the anatomy and physiology of the human body. But in contrast to the modern sophisticated technology in ancient time Ayurveda Has given vivid description about the anatomy and physiology of the human in terms of *Dosha*, *Dhatu*, *Malas* and *Srotas*, *Kostha*, *Kostangas* etc. in ancient times. The physiology and pathology concept of human body cannot be clear without the thorough knowledge of *Srotas*. Therefore from treatment point of view the consideration of *Srotas* are very important. *Srotas* can be considered having channels or pores which carry nutrient and gives supply to the respective *Dhatu*s of the body as well as carry the *Doshas*, *Malas* etc. *Srotas* are the minutes the structural and functional unit of each organ before the introduction of Modern medicine in terms of *Dosa*, *Dhatu*, *Mala*, *Srotas*, *Indriyas*, *Ashayas*, *Anga Pratyana* etc. Earlier there may be no laboratory like this modern days but the great Ayurveda physicians like Caraka, Sushruta, Vagbhat, Madhav etc. have given some criteria to diagnosis a particular disease on basis of *Dosas*, *Dhatu*, *Malas*, *Srotas*, *Trividhpariksha*, *Panchanidan*, *Asthavidhpariksha* and

Dasavidha pariksha. Channel or pores which carry nutrients and give the supply to *Dhatu*s of the body and also carry *Vata*, *Pitta*, *Kapha*, *Indriya* and *Mana* Shapes and sizes of the *Srotas* is different in different *Dhatu*s. According to *Accharya Vagbhat* in *Astangahridaya sarirasthan* mention two types of *Srotas* one is *Bahyasrotas* (external and *Abhyantrasrotas* (internal). *Bahyasrotas* are big in size, open to the exterior and nine in number, they are also called as *Stulasrotas*. *Abyantarasrotas* are minute and they are thirteen in number. And there is also 13 types of *Srotas* as mentioned by *Caraka* which supposed to be more physiological in nature which has extensive important from *Kayachikitsa* point of view where as in Sushruta samhita there are 11 pairs of *Srotas* are mentioned which are more anatomical in nature and bear a more surgical significance. Out of 13 types of *Srotas* are as follows, *Pranavaha*, *Udakavaha*, *Annavaha*, *Rasavaha*, *Raktavaha*, *Mamsavaha*, *Medavaha*, *Asthivaha*, *Majjavaha*, *Sukravaha*, *Purrisavaha* and *Swedavaha*. Out of these *Asthi*, *Majja*, *Swedavahasrotas* are omitted and are *Arthavaha* are included in Sushruta description. The *Srotas* are mainly gets vitiated due to unhealthy food and regiments, and suppression of natural urges. *Samanyalakshana* of the *Srotas* is *Atti-pravriti*, *Sanga*, *Siragranthi* and *Vimargagaman*. The *Raktavaha-srotas* is responsible for carrying nutrient of *Raktadhatus*, any pathological condition of *Raktavaha-srotas* leads to different kinds of diseases. The *Mulassthan* of *Raktavahasrotas* are *Yakrit* and *Pleeha* according to *Caraka*

and Vagbhat and *Raktavahadhamanis* are added by Sushruta Samhita. The *Mulasthan* are also mentioned as *Prabhavasthan* (the source of origin) as mention by *Chakrapani* and injury to the *Mulasthan* is mentioned by Sushruta samhita in Sarira sthana chapter 9 *Dhamani-vyakarnasariram* in terms of *Moolavidha-lakshana*, where as the *Viddhalakshana* are not mentioning In *Caraka samhita*. More over in *Caraka samhita Raktapradushya vyadhi* are includes as the *Vyadhi of Raktavahasrotas*. The diseases of *Raktavahasrotas* as mentioned in the *Samhita* is *Kustha, Visarpa, Pidika, Raktapitta, Asrigdar, Gudapaka, Medhrapaka, Pliharoga, Gulma, Vidradhi, Nilika, Kamala, Vyanga, Piplava, Tilakalaka, Dadru, Carmadala, Switra, Pama, Kotha, Asramandala*. In *Sushrutasmhita* apart from these diseases *Masak, Mukhapaka, Vatarakta, Lingapakaarsa, Arbuda* and *Angamarda* are described as *Raktadosajaroga*. Vagbhat also followed Sushruta as he mentioned the *Raktavahasrotas* diseases in *Dosadivijnaneeyam* chapter in *Sutrasthan* as *Raktadoshaja* apart from the diseases mentioned in above he includes *Daha* in *Netramukha, Guda, Agninash, Murcha, Lalima* in *Twacha, Netra* and *Mutra, Sarira, Tama pravesh* and *Upakosh*. The treatment principle of *Raktavahasrotas* is therapies like fasting and bloodletting indicated for the treatment of *Rakta pitta*.

The main aim of the study is to find out a concept on *Raktavahasrotas* and different diseases related to the *Srotas* as mentioned in *Brihytrayee* so that a conceptual compilation can be made on *Raktavahasrotas*.

Definition of Srotas

Acarya Caraka has described *srotas* in *Vimanastana* chapter 5 (*Srotovimaniya Adhyaya*) in detail but he gave incisive definition of *Srotas* in *Sutrasthan* chapter thirty (*Arthedasamahamulia*) as *Sravanatsrotamsi*.

Means the organ which, to differentiate it from *Sira, Dhamani*, to make its meaning more explicit several other commentators gave an incisive definition of *Srotas* in *Sutrasthan* chapter thirty (*Arthedasamahamulia*) as *Sravanat Srotamsi*.^[1]

The number of *Srotas* is that much as the number of specific structures present in the body of *Pursha*. All the existence structures in the human body come to stop or to undergo decrease in the absence of the respective passage of circulation. The passages of circulation carry the *Dhatu* which is in the process of in changing situation to their destination.^[2]

Chakrapani further explained the term "*Murtimanta*" meaning structural existence is used here to denote of the structural organization as are not omnipresent and having limitations to their quantities.

The use of the term "*Parinamapadyamanam*" (meaning undergoing changing) indicates that the channels carry such of the tissue elements as are going transformation from their pervious states, i.e., *Rasa* (plasma) to their subsequent states viz. *Rakta* (blood) etc.

Use of the term "*Ayanarthena*" (meaning to their destination) indicates that the channels of circulation do not carry the *Sthira* (stable) *dhatu*s, but only such of the mobile *Dhatu*s, are destined to be transformed to another *Dhatu*s situated elsewhere, carried by them. In other

words: *Rakta* is increased in quantity, when *rasa* after the process of transformation, gets mixed with it. Locations of these two tissue elements, viz *rasa* and *Rakta* are different and these two *Dhatu*s cannot come together in the absence of a channel for circulation. Thus the intention of the author here is to state that each *Dhatu* or tissue element has two fractions, one of which is stable (*Posya*) and which gets nutrition from the preceding *Dhatu*s and the other which is unstable provides nutrition to the succeeding *Dhatu*s (*Posaka*). This second fraction of the preceding *Dhatu* (e.g.*Rasa*) cannot move to the succeeding *Dhatu* (e.g. *Rakta*) for providing nutrition in the absence of a channel of circulation. The principle, involved in the transformation of *rasa* to *Rakta*, is applicable to all the other structural elements of the body as well. Tissue elements are situated in different parts of the body and each of them has channels are situated in different parts of the body and each of them has channels to carry their particular nourishment. So *Dhatu*s are nourished through their respective channels and one channel cannot provide nourishment to another *Dhatu* as one canal cannot irrigate tress situated in different places (directions).

Manas (mind) is eternal and there is no question of providing any nourishment to it. Still it has its specific channel through which it keeps contact with the senses situated at different places. For such factors like mind etc., which are beyond sensory perception (trans-sensory), the entire body works as the channel. Similarly *Dosas* move through the entire body. Even though no gross channel is described for them still it will be stated in para-7 that they move through all the channels all the body. For those who desire to know things in their subtleties, vessels dominantly carrying each of these *Dosas* are also described e.g. in the *Susruta*, (ten vessels are described to carry *Vata*). *Susruta: Sarira* 7:6. Unlike the *Susruta*, description of differences among *Dhamani*, *sira* and *Srotas* are not given in *Caraka*.

Susruta defined *Srotas* as the hollow channel except *Sira* and *Dhamani*, which originating from root space spreads in the body and carries (specific entities).

Vagbhat follows the view of *Caraka* but he opines that *Sira* and *Dhamani* are the modified forms of *Srotas*.

Vagbhat terms the *Srotas* as *Jivita, Ayantana*. The term *Srotas* means a channel. It is derived from the root "*Susravane*" meaning to exude, to ooze, to filter, to permeate. *Charaka* has defined it as "*Sravanatsrotamsi*" meaning the structure through which *Sravanam* takes place.

Srotamsi of the body comprise of channels of different kinds. They may be *Stula* (gross, microscope, or *Sukshma* (subtle or atomic and size on microscope). In general usage of the term *Srotamsi* comprehends all channels -big and small; permeable and impermeable that compose the internal transport system of the body.

The *Srotas* represents the above the said complete transport system of the body have been given important place in the fundamental principles of *Ayurveda* as it plays a key role in maintaining the positive health. The distribution of their normal condition impairs the

structural and functional integrity of the body system thus results in disease or decay.

All physiology and pathological and pathological processes are mainly dependent upon these *Srotas*.

Types of *Srotas*

In Ayurvedic texts, there are two types of *Srotas*.

A. *Bahirmukha Srotas* / Major External Orifices

They are termed as *Navadwara*, *Navachidra* or *Randhra*.^[3]

- Susruta described *Srotas* in *Sarira Sthana*, chapter 5 along with the description of other body parts. He stated that *Srotamsi* are nine in number and *Yogavahisrotas* are twenty two in number. According to *Ghanekar Yogavaha* means that these carry Rasa (plasma) and *Rakta* (blood) etc. further, Susruta said that *Srotamsi* which are enumerated as nine in numbers are *Bahirmukha* i.e., major external openings of the body. These are two ears, two eyes, one mouth, two nostrils, one anal opening and one urethral opening (nine) in males while in females there are three more openings, two breasts (nipples) and one vaginal opening.

Acharya Charaka describes *Antarmukha* and *Bahirmukha Srotas* in two different context i.e. in *Sutra sthana* and *Vimanasthana*. *Bahirmukhasrotas* i.e., *Malayana* are anal opening, urethral opening, seven opening in head (two eyes, two ears, two nostrils and one mouth) and sweat gland opening i.e. *Romakupa*.

- Vagbhata also present his views similar to Susruta and he states that there are nine opening or *Bahyasrotas* in man while the females have 12 (two *Stana* and one *Raktapatha*).

B. *Antramukha Srotas* (*Internal Srotas*)

In *Astangahridayam* in *Sarirasthana* chapter 3 *Srotas* which are internal are said to be thirteen and are seats of life (activities essential for existence of life); they are one each of *Prana* (respiration), the *Dhatu*s (the seven basic tissues), the *Malas* (three chief wastes), *Ambu* (water) and *Anna* (food).

In *Carakasamhita vimanstan* 5/6 types of *Srotas* mentioned as 13 no, they are *Pranavaha*, *Udakavaha*, *Annavaha*, *Rasavaha*, *Rudhiravaha*, *Mamsavaha*, *Medasvaha*, *Asthivaha*, *Majjavaha*, *Sukravaha*, *Mutravaha*, *Purisavaha* and *Svedavaha*.^[4]

In *Sushrutasamhitasarirasthan* 9/12 types of *Srotas* is mentioned as 11 pairs, they are *Pranavaha*, *Udakavaha*, *Rasavaha*, *Raktavaha*, *Mamsavaha*, *Medavaha*, *Mutravaha*, *Purishavaha*, *Sukravaha* and *Artvavahasrotas*.^[5]

In *Astanga samgraha sarir sthan* 6/14 said 13 number of *Srotasbahayasrotas* (external) and *Abhiyantar* (internal). *Bahayasrotas* are two in the nose, two in the ears, two in the eyes, one of the rectum, one of the mouth and one of the urethra, in women there are three passage two breasts and one of vaginal opening of menstrual blood. *Abhiyantarsrotas* are *Pranavahasrotas*, *Rasavahasrotas*, *Mutravahasrotas*, *Malavahasrotas*, *Swedavahasrotas*, *Udakavahasrotas* and *Anavahasrotas*. *Astanga hridaya sarirasthan* 3/40-42 said same as *Astangahridaya*.^[6]

Synonyms of *Srotas*

Carakasamhita	Sushrutasamhita	Astangasangraha
<i>Srotas</i>	-	+
<i>Sira</i>	-	+
<i>Dhamani</i>	-	+
<i>Rasayani</i>	-	-
<i>Rasavahani</i>	-	+
<i>Nadi</i>	-	+
<i>Pantha</i>	-	+
<i>Marga</i>	-	+
<i>Sariracchidra</i>	-	+
<i>Samvrtasmvrta</i>	-	+
<i>Sthana</i>	-	+
<i>Asaya</i>	-	+
<i>Niketa</i>	-	+

Moolasthan of *Srotas*

The term *Moola* is used in different meaning in ancient Indian Literature. In *Rikveda* this term is used for *Vitta* or *Dhana*, In Mahabharat the term *Addyam* (origin or starting) is used, in *Markandeyapurana* term “*Jyesthasumule*” is used which is related to *Naksatra*, here term *Nikunja* and *Antikum* (finish or last part) is also used. Acharya Charaka has used this term in meaning of *Karan* or *Adhara* (reason/ base). In Susruta samhita and *Astaanga Hridaya*, *Moola* word has been used as tracer, director or prob.^[7]

Moolasthan of any *Srotas* can be determined by some logical points and been categorized.

- Utpattisthana*- seat of origin of that element (*Dhatu* and *Mala*)
- Sangrahassthan*- seat of storage
- Vahasthana*- seat of carriage or flow of bodily elements
- Naidaniksthan*- *Moolasthan* having diagnostic importance
- Cikitsatmaksthan*- *Moolasthan* important in treatment of certain *Srotas*.^[8]

Hetu of *Srotas Dusti Lakshana*

In *Charak Viman Sthana* (5/22)

Ahar (food) and *Vihar* (regimens) which is similar quality with *Dosas* and *Dhatuguna* opposite *Guna* that *Ahar* and *Vihar* due similar *Guna* increases *Dosas* and vitiate likewise.

In *Astanga samgraha sarirasthan* chapter 6/34, said same view as *Carakasamhita*.

Astanga hridaya sarirasthan chapter 3/42, said that these *srotas* getting vitiated (becoming abnormal) by indulgence in unsuitable (food and activities) give rise to disease; when unvitiated (normal) these make for health.

But Susruta samhita did not mention any *Hetu* of *Srotas*, he said injury to the *Srotas* manifest incurable conditions that 's why such information should be given to the patient and to his attended and proceed the treatment to remove foreign body in *Sarirasthan* 9/12.

Srotas Dusti Laskhana

In Charak Viman Sthana (5/23)

1. *Atipravati*. 2. *Sanga*. 3. *Siragranthi*. 4. *Vimargagamana*. These are the four factor of *Srotasdusti* mentioned *Carakasamahita*, *Astangahridaya* and *Astangasamgraha*.^[9]

These are the *Srotasdustilakshana* described by *Carakasamahita*, *Astangahridaya*, and *Astangasamgraha* ; they have similar view on *Srotadusti*.

Susruta did not mention *Srotadustilakshana* but mentioned as *Viddhalakshana* (traumatic) or physical (structural damage) and their specific consequences, the meaning carry same as Caraka as the *Srotadusti* mention by Caraka is due to *Nijakarana* and the *Srotavidha* means structural damage due to *Agantukakaranas* in S.Sa 9/12.

Raktavahasrotas (Anatomy and physiology)

The channel (*Srotas*) which carry *Rakta* (blood) to system and its spread the entire body said in Charak viman sthan 5.

Mulasthan of Raktavahasrotas

Yakrit and *Pleeha* (ch.vi 5/7-8)

Raktavahadhamani, *Yakrit* and *Pleeha* (su.sa 9/12)

Yakrit and *Pleeha* (As sam.6/14)

To know the anatomy of *Raktavahasrotas* their *Mulasthan* is considered. Both Caraka and *Vagbhat* considered *Yakrit* and *Pleeha* but *Sushrit* has described *Raktavahinidhamanis*, *Yakrit* and *Pleeha* as *Mulas*. *Raktavahanidhamanis* are none other than all blood vessels namely arteries, veins, arterioles, venules, capillaries, sinusoids etc. *Sushrut* being a surgeon always looked on such structures from surgical point of view and was more practical in approach irrespective of concept of *Srotas* or *Srotamula*. In Ayurveda there is no clear description of *Yakrit* (liver) and *Pleeha* (spleen).

Liver is made up of liver cells called hepatocytes and a system of blood vessels. Liver consists of many lobes. Each lobe consists of large number of lobules. Each lobule is a honey comb like structure. The cells are arranged in different plates. Each plate is one cell thick with a central vein. In between the cells are bile canaliculi. Each lobule is surrounded by portal vein and a tributary of bile duct.^[10]

In between the plates, the sinusoids or blood spaces are present. The sinusoid receives blood from a branch of portal vein and a branch of hepatic artery of the portal triad. Sinusoids are lined by endothelial cells. Few macrophage cells called Kupffer cells are also found in between the endothelial cells.

Biliary System

The biliary system or extrahepaticbiliary apparatus is formed by gallbladder and the ducts called extrahepatic bile duct. The bile secreted in the hepatic cells is poured into a thin canaliculus called bile canaliculus. Few canaliculi unite to form small ducts, which finally form left and right hepatic duct. This joins the cystic duct from gallbladder to form common bile duct.

Right and left hepatic ducts, common hepatic, cystic duct and common bile duct are structurally similar. The common bile duct unites with pancreatic duct forming the common hepatopancreatic duct, which is otherwise

known as ampulla of Vater. ampulla of Vater opens into duodenum.

Blood Supply to Liver

Liver receives blood from two sources namely, the hepatic artery and portal vein.

Hepatic Artery

The hepatic artery arises directly from aorta and supplies pure arterial blood. After arises directly from aorta and supplies pure arterial blood. After entering the liver, the hepatic artery divides into many branches. Each branch enters a portal triad.

Portal Vein

This formed superior mesenteric vein and splenic vein. Thus, the portal vein brings deoxygenated blood from stomach, intestine, spleen and pancreas. Therefore the blood in portal vein is rich in monosaccharides and amino acids. This blood also contains hormones of stomach, intestine and pancreas. However, the oxygen content is less in portal vein. The blood from hepatic artery and portal vein gets mixed up in the hepatic sinusoids. The hepatic cells get oxygen and nutrients from the sinusoid.

The flow of blood from intestine to liver through portal vein is known as enterohepatic circulation.

Hepatic Vein

The various substances produced by liver cells, the waste products and carbon dioxide are discharged into sinusoids. The sinusoids drain into the central vein of the lobule. The central veins from different lobules unite to form bigger veins. These veins ultimately form hepatic veins (right and left) which open into inferior vena cava.

Function of Liver

1. Storage function
Many substances are stored in liver viz. glycogen, amino acid, iron folic acid and vitamins A,B12, d.
2. Synthetic Function
Plasma proteins, blood group substances, clotting factors somatomedin and heparin are synthesized in liver.
3. Secretion of Bile
Liver secretes bile, which contains, bile pigments, cholesterol, fatty acids and lecithin.
4. Metabolic Function
Liver is the organ where maximum metabolic actions are carried out. Metabolism of carbohydrates, proteins, lipids and vitamins and many of hormones occurs in the liver.
5. Excretory Function
Liver excretes cholesterol, bile pigments, heavy metals (like lead, arsenic and bismuth), toxins, bacteria like typhoid and virus (like that of yellow fever).
6. Heat Production
Due to the metabolic actions, heat is produced in liver. Liver is the organ where heat produced is maximum.
7. Haemopoietic Function
In fetus (hepatic stage) blood cells are produced in liver.

8. Haemolytic Function

The senile red blood cells after the life span of 120 days are destroyed by reticuloendothelial cells of liver.

9. Defensive Mechanism.

The reticuloendothelial cells (Kupffer's cells) of liver play an important role in the defense of the body. Liver also involved in the detoxification of the foreign bodies.

and damaged cells, and participation in the immune response to the blood-borne antigens.

- The spleen is a major repository of mononuclear phagocytic in the red pulp and lymphoid cells in the white pulp.

Raktavahasrotas Dusti Hetu In Charak Viman Sthana (5/13)

Due to intake of *Vidahianna* (food which cause burning sensation) and *Pana* (drinks), *Snigdha* (oily), *Ushna* (hot) *Drava* (liquid) food consumption along with exposure to *Atopa* (sunlight) and *Anila* (air) all these factors lead to *Raktavahasrotasdusti*.^[12]

Spleen ^[11]

- The spleen is part of the circulatory system as lymph nodes are to the lymphatic system.
- Among its functions are filtration from the blood stream of all foreign matters including obsolescent

Raktavaha Srotagata Vyadhi

The Vyadhi (disease) of Raktavahasrotas according to Brihatrayee

Caraka Samhita suttrastan 28/11-12	Susruta Samhita Suttrasthan 24/12	Astanga Samgraha 19/7	Astanga Hridya 11/9
<i>Kustha</i> (all types of skin disease)	+	+	+
<i>Visarpa</i> (erysipelas)	+	+	+
<i>Pidika</i> (pimples)	+	+	+
<i>Raktapitta</i> (haemolytic disorder)	+	+	+
<i>Gulma</i> (abdominal tumour)	+	+	+
<i>Kamala</i> (jaundice)	+	+	+
<i>Pleeharoga</i> (splenomegaly)	+	-	-
<i>Vianga</i> (dark shade)	+	+	+
<i>Vidradhi</i> (abscess)	+	+	+
<i>Nilika</i> (bluishness)	-	-	-
<i>Tilakalka</i> (Birth marks like sesamum)	+	-	-
<i>Asrigdar</i> (all type of menstrual disorder like menorrhagia)	+	+	+
<i>Pipalava</i> (Port wine mark)	-	-	-
<i>Dadaru</i> (Ring worm)	-	-	-
<i>Charmadal</i> (Dermatitis)	-	-	-
<i>Switra</i> (Leucoderma)	-	-	-
<i>Pama</i> (Papules)	-	-	-
<i>Koth</i> (Urticaria)	-	-	-
<i>Rakta mandala</i> (Red circular patches)	-	-	-
-	<i>Masak</i> (moles)	-	-
<i>Gudapaka</i> (inflammation of anus) and <i>Medhrapaka</i> (inflammation of penis)	+	-	-
-	<i>Mukhapaka</i> (mouth ulcer)	-	-
-	<i>Lingapaka</i>	-	-
-	<i>Vatarakta</i> (gout arthritis)	+	+
-	<i>Indralupta</i> (alopecia)	-	-
-	<i>Arsa</i> (haemorrhoids)	-	-
-	<i>Arbuda</i> (tumour)	-	-

-	Angamarda (whole body pain)	-	-
-	-	Daha (burning) in Netra (eyes), Mukha (mouth), Medhra (penis) and Guda anal opening	-
-	-	Agninash (lost of digestive power)	+
-	-	Murcha (fainting)	Tama pravesha (black out)
-	-	Lalima (redness) in Tawcha (skin), Netra (eyes) and Mutra (urine)	Lalima in Sarir (body) and Netra
-	-	Upakosh (Diseases of teeth)	-

Treatment Principles of Raktavaha Srotas

Vyadhi (Disease)

In CharakSutra Sthana (24/18), therapies like *Virechana* (purgation), *Langhana* (fasting) and *Raktasravan* (bloodletting) which are done in the treatment of *Raktapitta* are also useful for curing diseases due to the vitiation of the blood.^[13]

Caraka mentioned that the treatment of *Raktavahasrotas* in Sutrasthan chapter 24 *Vidhisonitaddhya*, the treatment that give in *Raktapitta* to cure like therapies of *Virechana* (purgation), *Upavash* (fasting) and *Raktamokshana* (bloodletting).

Virechana- The process of expelling morbid material through the downward tract (anus) is called *Virechana* (purgation). The drugs used in *Virechana* are *Ushna* (hot), *Tikshna* (sharp), *Sukshma* (subtle), *Vyavayi* (those pervading the entire body before getting digested) and *Vikashi* (those causing looseness of joints), by virtue of their potency, reach the heart, and circulate through the vessels. Because of their *Agneya* nature (predominance of *Agni-mahabhuta*), they liquefy the compact (adhered) *Dosas* (morbid material), and because of their sharpness (*Tiksna* attribute) they separate the *Adhreddosas* located in the gross and subtle channels of the entire body. Due to the predominance of *Prithvi* and *Jalamahabhuta* and their actions (*Prabhava*) to move downwards to expel the morbid material through the downwards tract (anus).

The drugs used for purgation as given in *Caraka kalapasthan* chapter 1 are-

1. *Syama*
2. *Trivrt*
3. *Caturangula*
4. *Tilvaka*
5. *Mahavrksa*
6. *Saptala*
7. *Sankhini*
8. *Danti*
9. *Dravanti*

These are the different types of drugs depending upon the *Desa*, *Kala*, *Sambhava*, *Asvada*, *Rasa*, *Viryas*, *Vipaka* and *Prabhava*. Patients whom these drugs are to be used

also of different types depending upon the nature of their *Deha*, condition of *Dosas*, *Prakriti*, age, *Bala*, *Agni*, *Bhakti* (liking of particular type of recipe), *Satmya*, *Rogavastha* (stage of diseases) etc.

Langhana (fasting)

Whatever is capable to reduce the body is known as '*Langhana*' or reducing therapy.

The drugs used in *Langhana* are light, hot, sharp, non slimy, rough, subtle, dry, fluid and hard.

Types of Langhana

There are ten types of *Langhana* i.e., four types of elimination therapies (emesis, purgation, *Niruha* type of enema and inhalation), control of thirst, exposure to wind and sun, intake of substance that stimulates digestion, fast and physical exercise constitute reducing therapy.

Langhana therapy is to be administered during the *Hemanta* and *Sisra* (winter).

Raktamokshana

The process of letting out impure *Dosha* from the blood by the help of *Jalukavacharana*, *Shringavacharana*, *Alabuavacharana* and *Ghatiyanttra*- *Avacharana* is called *Raktamokshana*.

Astanga samgraha sutrasthan chapter 19, as the ailments caused by the abnormal increase of *Rakta* should be treated specially bloodletting, purificatory therapies and purgation of the body.

Single herbs use in *Raktavahasrotas* diseases.

The drugs which purify the blood and in haemostatic in nature.

1. *Manjistha*
2. *Haridara*
3. *Kadhira*
4. *Sariva*
5. *Neem*
6. *Chandan*
7. *Ushir*
8. *Durva*
9. *Lodhra*

10. *Raktachandan*

Compound Formulation

1. *Arogavardhini Vati*
2. *Manjisthadi Kwath*
3. *Rasamanikaya*
4. *Panchatikta Guggulu*
5. *Mahatikta Ghrita*
6. *Raktapittanka Lauham*
7. *Samsarkara Lauham*
8. *Punarnava Mandur*
9. *Dhatri Lauha*
10. *Navayas Lauha*
11. *Triphaladi Churna*

CONCLUSION

Raktavahasrotas from its *Utpattisthan* we can compare with Haemopoetic system. From the *Sangrahasthane* come to know liver and spleen act as reservoir of blood. And from the *Vahansthan* we can also compare with the circulatory system of the body and its *Moolasthan* we can compare with the portal system and from its *Moolsthan* it is easy to diagnosis the disease and the doctor can give the proper.

Thus we can concluded that *Raktavahasrotas* is nothing but whole circulatory system and the disease of the *Raktavahasrotas* and the disease which is mainly liver and spleen disease. Any of the skin disease, any kind bleeding disorders, hepatic disease and tumour treatment should given its root liver and spleen.

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Cite this article as:

Sangeeta Rongson, Niten Barman. A Conceptual Study of Raktavaha Srotas and its Disease. International Journal of Ayurveda and Pharma Research. 2017;5(6):89-95.

Source of support: Nil, Conflict of interest: None Declared

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