



E ISSN 2350-0204

IJAPC

VOLUME 11 ISSUE 3 2019

www.ijapc.com

Greentree Group Publishers (GGP))



A Review of *Srotas* and its Significance in Management of Diseases

Indra Rani^{1*} and Satpal²

¹Dept. of Kriya Sharir, Ch. Brahm Prakash Ayurved Charak Sanathan, Najafgarh, New Delhi, India

²Dept. of Rachana Sharir, Ch. Brahm Prakash Ayurved Charak Sanathan, Najafgarh, New Delhi, India

ABSTRACT

According to the principle of “*Yatt brahmandae tatt pindae*” body is collection of the content as same as the environmental structure. Human body is the aggregation of *Srotas*. *Srotas* actively take part in the conversion, transportation, absorption and excretion of many substances which flow or transported through them. Thus, *Srotas* are the anatomical structure which supports different *Kalas* and *Agnis* and process them which are flowing into them. The space enclosed by *srotas* has various size and shapes that depend upon the functions of *Srotas* have carry out. *Srotas* are *bahya* (mouth of *Srotas* open out of the body) and *abhyantra* (extending within the body). *Srotas* are the anatomical space that actually takes part in the metabolism of many substances. Exchange of material between interstitial fluid and intra-capillary substances through specific pores called *Ayana*. The space enclosed by *Srotas* has various size and shapes according to their functions. The numbers of *srotas* are different according to the different *Acharya*. *Srotas* have their own *Moolasthan* or *Prabhavsthan* (place of origin) that contain different anatomical structures. Every *Srotas* have different functions and *Dusti* (distortion) symptoms. Any pathology or damage to the *Srotas* causes vitiation of *dosha* of that region causes various types of disorder. When the vitiation of *Srotas* occurs, the treatment of *moolasthan* can cure the whole deformity because *moolasthan* is the control system of the whole *Srotas*. The presentation is aimed to review the concept of *Srotas* and importance in management of the disease.

KEYWORDS

Srotas, Moola, Srotodusti, Channels



Greentree Group Publishers

Received 22/11/18 Accepted 29/10/19 Published 10/11/19



INTRODUCTION

According to Ayurveda, health is state of equilibrium of *dosha*, *agni*, *dhatu*, *mala* and satisfying state of *Atma*, *Indriya* and *Manas*¹. Human body is basically composed of *Tridosha* (three attributes i.e. *vata*, *pitta* and *kapha*), seven basic body tissues (*Dhatus*) i.e. *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Asthi*, *Majja*, *Shukra* and *mala* i.e. excretory substance². *Dosha* are functional entities, which have physiological significance in entire body. *Dhatu* and *mala* have anatomic significance and physiological as well. The vitiation, depletion and maintenance of bodily structures i.e. *Dhatu* are never possible without *Srotas*. *Srotas* are the conduits which bear formation, transportation and excretion the *dosha* and *Dhatu* or their elements to the various organs.

The term *Srotas* is derivative of “*Susravano*” means emanate, ooze, filter and infuse³. Following principle of “*Yatt brahmandae tatt pinda*” *Acharya* has analyzed a critical concept⁴ that body is comprised of numerous channels which operate the internal body environment, performing various functions such as catabolism, anabolism, transformation, secretion, absorption, diffusion etc. *Srotas* are structural entities which emanate from vacant space⁵, spread throughout body and

carry elements and substances from one place to another to fulfill the nutritional needs of organs and to get rid the end product of metabolism from body. If *Srotas* are in healthy state the formation of *Dosha*, *Dhatu* and *Mala* are good, if *Srotas* are vitiated then *Dosha*, *Dhatu* and *Mala* also become vitiated which results in disease. Every *Dhatu* has two fraction viz. *Sthayi* or *Poshya Dhatu* and *Asthayi* or *poshaka dhatu*. *Chakrapani* has explained that *Sravanatas* is referred to elegant of *Poshya Dhatu* (nourishing substances). The *Poshya Dhatu* is considered supportive entity, basic tissue of the body, the *Poshak* or *Asthayi Dhatu* is nourishing entity⁶.

Srotas transform previous *Dhatu* to subsequent *Dhatu* which go through it, like *rasa* to its subsequent state *Rakta*, *Rakta* to *Mansa* etc. Because of *Sravana karma* (transudation) these are considered as *Srotas*⁷. The nourishing as well as waste elements enter into various channels through circulation and circulate through them. Thus *Srotas* provide pathway for the passable flow to *Dosha*, *Dhatu* and *Mala*. Present article emphasis on proper understanding on concept of *Srotas* in systematic manner, to understand functions carried out by *Srotas*, its *Moolasthan* and causes of *Srotodusthi* and its characteristics along with clinical importance of *Srotas*.



Synonyms of Srotas: *Srotas* consists of channel of diverse variety. *Acharya* Charak has explained that *Srotas* are *Vritta* (cylindrical), *Sthula* (macroscopic), *Anu* (microscopic), *Dirgha* (large), or *pratana* (reticulated) in shape. *Srotas* subsist with very fine passages and pores present in stem lotus, *Poshya Dhatu* (nourishing element) circulates all over the body and provide nutrition to the body through it⁸. Blood flow through *Sira*, *Dhamni* and *Nadi*, nourishes the cells and collect wastes from it. *Acharya* has integrated many other structures in synonym of *Srotas*, indicating macro and micro channels and pathway operating in the internal environment of body. the synonyms are *Sira* (vein), *Dhamni* (arteries), *Rasayani* (lymphatics), *Rasvahini* (capillaries), *Nadi* (ducts), *Pantha* (passage), *Marga* (channels), *Sharirchidrani* (sphincters), *Sthanani* (site), *Niketa* (places), *Ashaya* (recipient), *Rasvahaniya* (lymphatic), *Samvrita-asamvrita* (open and blind passages), *Ashayas* (spaces), *Sharir Dhatwaavaksh Lakshyana-alakshyana* (visible and invisible interstitial). Synonyms elaborate the field of *Srotas* which are channelized or non-channelized, and macro or micro structures of the body. *Srotas* is defined as the hollow channels, other than *Sira* and *Dhamani*. It originates from root space and

spread in body to carry specific entities⁹. *Dhamani* and *Sira* are quite different from *Srotas* because of quite different characteristics, *Moolasthan* (system of origin) and functions. Due to mutual proximity, similar authority functions and minuteness they are similar in function. *Dhamani* are structure which executes *Dhaman Karma* (pulsation) as arteries. *Sira* executes *Saran Karma* (flowing). *Srotas* is considered for *Sravana Karma* (oozing) i.e. material oozes out or to exudates or to permeate or to filter¹⁰. They may be *Sthula* (gross, macroscopic) or *Sukshma* (subtle or microscopic). *Srotas* are classified as 1. *Sukshma* (Subtle) which are innumerable and, operates the vital processes of life. They are known as *Antermukha Srotas*. 2. *Sthula* (gross) which are also considered as *Bahirmukha Srotas* (Aperture or natural opening). *Bahirmukha Srotas* are nine in male i.e. two orifices of nose, two in eyes, two of ears, one mouth, below one in anus, one in urethra¹¹ and eleven in female including two *Stana* (breast) and one uterus. *Srotas* inhibit color similar to that of the own *Dhatu*, flowing across them. They are tubular, large, small, long and branch like in shape¹².

The *Srotas* are infinite yet *Acharya* Charak describes only thirteen types of *srotas*, considered as *Yogvahisrotas Srotas* which include *Pranavaha*, *Udakavaha*,



Annavaaha, *Rasavaha*, *Raktavaha*, *Mamsavaha*, *Medavaha*, *Asthivaha*, *Majjavaha*, *Shukravaha*, *Mutravaha*, *Swedavaha*, and *Purishavaha Srotas*¹³. *Acharya* Sushrut described eleven pairs of *Srotas*. He excludes *Asthivaha*, *Majjavaha*, *Swedvaha Srotas* and adding *Artavvaha Srotas*¹⁴.

Moola sthan: *Moola* is like the root of a tree just as if root is injured the whole tree suffers. *Moolasthan* of any *Srotas*, may be considered as *Utpattisthan* (root of origin), *Sangrahsthan* (place for storage) and *Vahanasthan* (place of conduction)¹⁵. According to Chakrapani the *Moola Sthan*

is illustrated as “*Prabhavsthanani*” or area of effect. Each *Srotas* is controlled by specific organ considered as *Moola* which synchronizes normal functioning of particular *Srotas*. The normal functioning of *Srotas*/channel depend upon status of its *Moolasthan*. It is controlling seat of the respective *Srotas*, as seat of pathology of that channel or the principal seat of manifestation of disease. The *Moolasthan* is site of origin, maintenance and destruction of that specific tissue factors. *Sthula Srotas* along with their *Moola* have been described for the purpose of the study of pathology and clinical medicines¹⁶. (Table-1)

Table 1 Type of *srotas* and its *moolasthan*

Sr no.	Name of <i>Srotas</i>	<i>Moola</i> (root of origin) Acharya Charak ¹⁷	<i>Moola</i> (root of origin) Acharya Susruta
1.	<i>Pranavaha</i> (cardiopulmonary system)	<i>Hridya</i> (heart) and <i>Mahasrotas</i> (alimentary tract)	<i>Hridya</i> (heart) and <i>Rasavahi dhamani</i>
2.	<i>Annavaaha</i> (upper alimentary tract)	<i>Amashaya</i> (stomach) and <i>Vamaparshwa</i> (duodenum)	<i>Amashaya</i> and <i>Annavahi dhamani</i>
3.	<i>Udakavaha</i> (fluid and electrolyte maintenance system)	<i>Talu</i> (palate) and <i>Kloma</i> (pancreas?)	<i>Talu</i> and <i>Kloma</i>
4.	<i>Rasavaha</i> (Lymphatic system)	<i>Hridya</i> (heart) and <i>Dashadhamani</i> (ten great vessels)	<i>Hridya</i> (heart) and <i>Rasavahi dhamani</i>
5.	<i>Raktavaha</i> (Hemopoietic and Vascular system)	<i>Yakrit</i> (liver) and <i>Pleeha</i> (spleen)	<i>Yakrit</i> (liver), <i>Pleeha</i> (spleen) and <i>Raktavahi dhamani</i> (blood vessels)
6.	<i>Mamsavaha</i> (muscular system)	<i>Snayu</i> (ligaments) and <i>Twak</i> (skin)	<i>Snayu</i> (ligaments), <i>Twak</i> (skin) and <i>Raktavahi dhamani</i> (blood vessels)
7.	<i>Medovaha</i> (adipose tissue channels)	<i>Vrikka</i> (kidneys) and <i>Vapavahana</i> (omentum?)	<i>Vrikka</i> and <i>Kati</i> (waist)
8.	<i>Asthivaha</i> (skeletal system)	<i>Meda</i> (adipose tissue) and <i>Jaghan</i> (buttocks)	
9.	<i>Majjavaha</i> (bone marrow tissue)	<i>Asthi</i> (bones) and <i>Sandhi</i> (joints)	
10.	<i>Shukravaha</i> (reproductive tissue channels)	<i>Vrishan</i> (testicles) and <i>Medhra</i> (penis)	<i>Vrishan</i> and <i>Stana</i> (breasts)



11.	<i>Artavavaha</i> (female reproductive system)		<i>Garbhashay</i> and <i>Artavavahi dhamani</i>
12.	<i>Purishavaha</i> (lower GIT)	<i>Pakvashaya</i> (colon) and <i>Sthoolaguda</i> (rectum)	<i>Pakvashaya</i> (colon) and <i>Guda</i> (anus)
13.	<i>Mutravaha</i> (urological system)	<i>Basti</i> (bladder) and <i>Vankshan</i> (groin)	<i>Basti</i> (bladder) and <i>Medhra</i> (penis)
14.	<i>Swedovaha</i> (sweat transporting channels)	<i>Meda</i> (adipose tissue) and <i>Romakupa</i> (hair follicles)	

Anatomical considerations:

Srotas are bodily systems recognized in Ayurvedic diagnosis and treatment. They emerge from multiple *Dhatu* (tissue factors) and *Mala* (metabolic waste) sustain healthy life. *Pranavaha Srotas* is associated with trachea, lungs, pulmonary vessels and heart. It conducts vitality and *Prana* to everywhere in body in coordination with respiratory and cardiovascular system. *Annavaha Srotas* transport and transform food. It can be correlated to digestive system. Most of digestive problems are associated with some kind of malfunctioning or disruption of *Annavaha Srotas*. *Udakavaha Srotas* are mostly fluid regulatory channels. Its root is palate and *Klom* i.e. a region of throat associated with transport of fluid. It uses *Rasavaha Srotas* and *Raktavaha Srotas* as their vehicle for fluid transport. Fluid imbalance may affect whole body. *Rasavaha Srotas* originate in heart and major blood vessels. It is responsible for chyle transport, transforming into plasma and have direct association with lymphatic system and

circulatory system. It nourishes entire body through liver via portal vein circulating blood to entire systems of body. *Raktavaha Srotas* emerges from liver and spleen hence it is associated with blood formation. *Mamsavaha Srotas* is responsible for formation and nourishment of muscles, ligaments and tendons from which are considered as its root. Kidney and mesentery are root of *Medovaha Srotas*, especially omentum nourishing to adipose tissue. *Asthivaha Srotas* governs skeletal system emerging from adipose tissue and hip bone nourishing to bones and cartilages. *Majjavaha Srotas* nourishes marrow and nervous tissue. It can be correlated with nervous system as its disruption leads to pathologies associated with that of nervous system. It emerges from bones and joints. *Sukravaha Srotas* is associated with reproductive system while *Artavavaha Srotas* is associated with lactation and parturition.

Function of Srotas

All *Bhavas* (anatomical structures) of body never appear or degenerate without *Srotas*



as it transfers all *Dhatus* from one place to another hence provides nutrition to all over the body. If *Srotas* is in healthy state then body will be healthy perform both catabolism as well as anabolism, they transfers *Prana* (vitality) *Udak*, *Anna* (nourishment) *etc*, in all over body. It is necessary for entry of one substance, shifting of that substance and exit of that substance for survival of body. The entire range of process of life in health and disease depends on the integrity of *Srotas*. *Srotas* are not only passage or channels for flow of various substances but also for their functions. Each *Srotas* provides nutrition to their respective *Dhatu*, in appropriate quantities neither too much nor too less, and excrete toxic substances. Structurally, the *Srotas* are the hollow channels originating from its *Moola*, spread with in body to act as a dynamic transport system for fulfillment of nutritional needs of organism. It also helps us to get rid of end product of metabolism from body. *Srotas* execute exudation, oozing, filtration, permeation, transformation, transportation, circulation and transmutation. So *Srotas* is a dynamic internal transport system. All the *Dosha*, *Dhatu*, and *Mala* are dependent on *Srotas*

for their formation, transportation, and obligation. It serves as controlling unit for the *Prasada Dhatu* as well as formation of *Sthayi Dhatu*. Growth, development and depletion of body tissue take place only through *Srotas*. State of health as well as disease both depends upon the state of *Srotas*. Proper functioning of *Srotas* maintains health while any obstruction or irregularity of functioning of *Srotas* results disease. It provides platform for activities of important bio-factors that causes *Prakopa* (excitation) or *Shaman* (alleviation) of *Dosha*¹⁸. *Srotas* system plays a scientific role in physiology, pathology and pharmacology. Concept of *Srotas* makes easy the physician to take decisions accurately with treatment and prognosis¹⁹.

Malfunctioning of *Srotas* is considered as *Srotodusti*. The food and activities, having properties similar to *Dosha* and dissimilar to *Dhatu* causes vitiation of *srotas*²⁰. For example *Diwaswapna* (day time sleep) has property similar to *Medodhatu*, so it results vitiation of *Medovaha Srotas*. *Srotodusti* is of four type i.e. *Attipravritti*, *Sanga*, *Siragranthi* and *Vimargagamana*²¹.

Table 2 Examples of *Attipravritti*

<i>Annavaha Srotoatipravritti</i> -	excessive flow of acid to stomach – <i>Amlapitta</i>
<i>Artavaha Srotoatipravritti</i> -	excessive flow of <i>rakta</i> or <i>artava</i> - <i>Raktapradara</i>
<i>Mutravaha Srotoatipravritti</i> -	excessive flow of urine - <i>Bhumutrata</i>
<i>Purivaha Srotoatipravritti</i> -	excessive flow of feces - <i>Atisara</i>



Attipravritti (hyper-activity)- Increased activities of one or more *Dosha*, *Dhatu* or *Mala* are considered as *Attipravritti* of that of *dosha*. (Table-2).

Sanga (obstruction) – *Sanga* is any types of growth which create obstruction in or out of *Srotas* that create blockage in normal flow of substance. It leads to diseases for example, obstruction of feces in constipation, intra luminal obstruction- *Baddha Gudodara*, extra luminal obstruction -any tumors /growths causing obstruction of *srotas*, externally.

Siragranthi (nodular growth) - *Siragranthi* means dilated mutilated vessels causing stoppage of flow of substances e.g. varicose veins.

Vimargagamana is abnormal course of *dosha* transgressing its own channel, entering into another pathway e.g. vomiting etc. *Vimargagamana* causes pathogenesis in two aspects, content of *Srotas* moving into other *Srotas* such as in cerebral hemorrhage blood comes out of the vessel

and enter into CSF. Secondly deprivation of the nutrition to its own tissue, in hemorrhage, the proper tissue which has to get blood supply will not have adequate nutrition resulting in loss of functions e.g. ischemia degeneration due to atrophy etc. Thus *Srotodusti* is a key factor involved in pathogenesis, devoid of which a disease cannot be diagnosed. Increase or obstruction of the flow of the contents, manifestation of nodules in the channels and diversion of the flow to improper channels- in general, these are the signs of the vitiation of the channels²².

Causes of Srotodusti: The factors which are responsible for growth of body are also responsible for disease, depending upon the way of utilization. Food and activities having properties similar to *Doshas* and dissimilar to *Dhatu* can cause indisposition of *Srotas*. Enhanced flow, obstruction, formation of nodules and flow of contents in wrong direction - are symptoms of morbidity of *Srotas*. Table-3 and Table-4.

Table3 Causes of *Srotodusti*

<i>Srotas</i>	Causes ²³ <i>Ahar</i> (diet)	<i>Vihar</i> (life style)
<i>Pranavaha Srotas</i>	Intake of dry foods, excessive exercise in presence of hunger.	Emaciated body, Withholding the natural body reflexes or urges, e.g. stools, urine etc, doing many such activities beyond one's physical capacity.
<i>Udakavaha Srotas</i>	Hot foods and comforts, due to presence of undigested food or metabolic toxins in the body, excessive consumption of alcohol, consumption of dry foods.	Fear, habit of withholding the urge for drinking water or holding on to the urge of thirst frequently.



<i>Annavaha Srotas</i>	Inconvenient intake of heavy quantity of food, unwholesome food, disturbance of digestive power.	
<i>Rasavaha Srotas</i>	Intake of heavy foods, cold foods, excessive consumption of oily foods, eating in excess.	excessive thinking (stress)
<i>Raktavaha Srotas</i>	Intake of foods and drinks which cause burning sensation after their consumption, intake of oily foods, hot foods, too dot liquid foods,	exposure to sunlight and fire
<i>Mamsavaha Srotas</i>	Intake of deliquescent, grimy and heavy food.	Go for sleep immediately after meal.
<i>Medovaha srotas</i>	Eating deluxe, fat rich, fried and rich caloric foods in excess and excessive consumption of an alcoholic product called <i>Varuni</i> (an alcoholic product)	Lack of exercise, sleeping during day time
<i>Asthivaha Srotas</i>	Excess consumption of <i>vata</i> aggravating foods.	Excessive exercise, excessive irritation, repeated traumas, crushes over the bones.
<i>Majjavaha srotas</i>	Being filled with wet components or <i>kapha</i> aggravating food, consumption of incompatible and unwholesome foods	Being crushed, accident / trauma, compressed
<i>Shukravaha Srotas</i>		Indulgence in sex at abnormal or restricted time periods, coitus with unhygienic women or women with an anomalous vagina or unnatural sexual practices e.g. anal sex or sex with animals. Regular withholding the ejaculatory urge, excessive indulgence in sexual activities, injuries by instruments, weapons, application or exposure to alkalis or fire burns.
<i>Mutravaha Srotas</i>		Drinking water, taking food and having sex in the presence of urge for urination, habit of holding the urge of urine regularly, emaciated body or tissue depletion, injury or damage to the passages of urine
<i>Purishavaha Srotas</i>	Excessive eating, indigestion, repeated eating (eating the food before previously undigested food), weak digestion.	Regular habit of withholding the urge for defecation, emaciated persons.
<i>Swedavaha Srotas</i>	Non-judicious intake of cold and hot foods and comforts.	Excessive exercise, exposure to heat, excessive anger, excessive grief, excessive fear.



Table 4 Symptoms of *Srotodusti*

<i>Srotas</i>	Symptoms of injury (<i>Acharya Shusruta</i>)	According to <i>Acharya Charaka</i>
<i>Pranavaha Srotas</i>	Screaming, Bending of body, Perplexing, Giddiness, Tremors, Death.	Too long (prolonged) breathing, too short breathing (short of breathe), difficult breathing, frequent and interrupted breathing, highly disturbed, breathing patterns looking scary, abnormal sounds of breathing, painful breathing
<i>Udakavaha Srotas</i>	Severe thirst, death.	dryness of the tongue, dryness of the palate, dryness of lips, dryness of the throat, dryness in <i>kloma</i> , severe thirst
<i>Annavaha Srotas</i>	Flatulence, colic or pain abdomen, aversion to food or anorexia, vomiting, thirst, blindness, death.	Anorexia, loss of interest in food, tastelessness, indigestion, vomiting.
<i>Rasavaha Srotas</i>	Emaciation, symptoms similar to those occurring due to injury to <i>Pranavaha srotas</i> and death.	lack of interest in the food, tastelessness, feeling of weird tastes, failure to identify any taste, watering of mouth, excess salivation, nausea, heaviness, drowsiness, pain in body, fever, darkness before the eyes, anemia, blockage of channels, impotency, fatigue, emaciation, weak digestive power, wrinkling of skin, premature graying of hairs.
<i>Raktavaha Srotas</i>	Blackish brown discoloration of body parts, fever, burning sensation, anemia, bleeding from different orifices of body, reddish discoloration of eyes.	Inflammation and suppuration of anal canal and anal orifice, inflammation and suppuration of penis, ulceration of mouth and tongue, stomatitis, enlargement of spleen, abdominal tumors, Abscess, bluish eruptions, Jaundice, includes pigmentation and melanin related problems like freckles, mole, melanoma, chloasma etc, Ringworm or tineas, excoriation, leukoderma, Scabies, skin eruption, reddish circular skin eruptions or patches
<i>Mamsavaha Srotas</i>	Swelling / edema, wasting of muscles, tumors or clots in the blood vessels	Excessive growth of muscle tissue, tumors, tonsillitis, adenoids, elongated uvula, muscle necrosis, goiter, cervical lymphadenitis, epiglottitis.



<i>Medovaha srotas</i>	excessive sweating, oily appearance of the body, dryness of the palates, obesity, edema, thirst	The vitiation of <i>Medovaha srotas</i> will lead to the manifestation of 8 types of socially unfit body frames. They are – <i>Atisthula</i> (obese or excessive fat), <i>Ati krusha</i> (thin and emaciated), <i>Ati loma</i> (lot of body hairs), <i>Aloma</i> (lack of body hairs), <i>Ati gaura</i> (excessive white complexion), <i>Ati Krushna</i> (too dark complexion), <i>Ati deergha</i> (tall or gigantic) and <i>Ati hrusva</i> (short or dwarfism). All these seem to be the diseases or body frames related to hormonal imbalances. Premonitory symptoms of urinary symptoms, diabetes are manifested when there is vitiation of <i>Medovaha srotas</i> .
<i>Asthivaha Srotas</i>	Sushruta has not explained <i>majjavaha srotas</i> .	Extra growth of bone tissues, extra growth of teeth, toothache, splitting or splitting pain in tooth, bone pain, splitting pain in bones, discoloration of body, deformities and diseases of hairs, deformities and diseases of body hair, hair rood disorders, disorders of skin pores, deformities and disorders pertaining to nails and nail bed, deformities and disorders of mustache
<i>Majjavaha srotas</i>	Acharya Sushruta has not explained <i>Majjavaha srotas</i>	Pain in the inter-phalangeal joints, Giddiness, fainting, loss of consciousness, feeling of darkness in front of the eyes, blurring of vision, seborrheas or pityriasis capitis, interphalangeal joints look big and large.
<i>Shukravaha Srotas</i>	Impotence, delayed ejaculation, blood mixed semen	Impotence, lack of erection or lack of interest in sex, no progeny. A child born to such person will have <i>shukravaha srotas</i> vitiation will have a less lifespan, will have ugly appearance and will not be able to produce a child, even if the <i>shukra</i> produces <i>garbha</i> (fetus), the fetus will not live long due to occurrence of abortion or miscarriage.

Management of vitiation of *Srotas*²⁴

The vitiation of *Pranavaha Srotas* should

be managed on the lines of treatment identical to *Hridroga*, *Kasa* and *Shwasa*.

The treatment of vitiation of *Udakavaha*



Srotas should be done on the lines of treatment likewise *Trishna Chikitsa* (treatment of thirst disorder). The disorders of vitiation of *Annavaha Srotas* should be treated on the lines of treatment of *Ama Pradosha* (metabolic disorders) which includes *Deepana* (metabolism increasing medicines) and *Pachana* (digestants). Management of vitiation of *Rasavaha Srotas* and the disorders of their origin is, *Langhana* (lightening therapies) which include *Vamana* (therapeutic emesis), *Virechana* (therapeutic purgation), *Shirovirechana* (nasal medications), *Niruha Vasti* (evacuation or cleansing enemas), *Pipaasa* (not drinking water), *Maruta* (exposure to breeze), *Aatapa* (exposure to sunlight), *Paachana* (medicines or treatments which can digest and destroy metabolic wastes), *Upavas* (fasting), *Vyaayaama* (exercise). One should treat *Raktavaha Srotas* on the lines of management of *Raktapitta* (bleeding disorders), therapeutic purgation, fasting, *Rakta Mokshana* (bloodletting). Management of vitiation of *Mamsavaha Srotas* should be treated with body cleansing treatments or evacuation treatments like *Vamana* (therapeutic emesis), *Virechana* (therapeutic purgation), surgical methods, application of alkalis and cauterization. They should be administered *Karshana* (thinning) and *Brimhana* (bulk

promoting) therapies as and when required. The person who is obese should be given *Guru Ahara* (heavy to digest food) at the same time administering *Apatarpana* (under-saturating or thinning treatments and medicines). *Asthivaha Srotas* should be treated by *Panchakarma* (five purification treatments), milk and or ghee processed with medicines having bitter taste. The treatment of vitiation of *Majjavaha* and *Shukravaha Srotas* is done on the same principles. It should be treated with foods which are predominant in sweet and bitter tastes in addition to advise to appropriately, indulge in sexual activities (intercourse), exercises and evacuatory treatments like *Vamana* (therapeutic emesis), *Virechana* (therapeutic purgation) etc. The vitiation of *Mutravaha Srotas* should be managed on the lines of treatment of *Mutrakruchra* (dysuria). The vitiation of *Pureeshavaha Srotas* should be managed on the lines of treatment of *Atisara* (diarrhea). The vitiation of *Swedavaha Srotas* should be managed on lines of treatment of *Jwara* (fever).

DISCUSSION

In general the term *Srotas* figure out all channels large as well as minute, perceptible and imperceptible, which compose the internal transport system of



body. If *Srotas* is in healthy state then body will be healthy. It is necessary for entry of a substance, biological transformation of that substance and exit of that substance from body. Therefore entire life depends on the integrity of *Srotas*. By avoiding factors which causes abnormality in tissues and using those which have similar qualities as tissues; prevents tissues from undergoing harmful changes²⁵. *Kashyap* has elaborated prophylactic value of food as best medicine. Without appropriate diet even medicine will fail to show any outcome that is why diet is said to be the great medicine²⁶. A physician, who is well acquainted with all aspects of the entire body and diseases manifested in body, will seldom commit mistake in treatment²⁷.

CONCLUSION

In Ayurvedic texts living being is considered as the *Samudaya* (aggregation) of *Srotas*. Thorough understanding of the *Srotas* is necessary as the whole body is made-up of numerous of *Srotas*. *Srotas* is internal transport system of body having fundamental relevance in health and disease. It's integrity is quintessence for healthy body. When it is blocked, choked, clogged or contaminated, it leads to serious damage, disease and death. Examination of *Srotomula* also provides diagnostic lead to

clinician and helps in management of diseases. As per modern science, *Srotas* can be understood as capillaries, intercellular space or entire wherever exchanges of material at extracellular, cellular and intracellular level take place²⁸. Integrity of the *Srotas* may be compromised due to improper food habits and faulty lifestyle²⁹. Thus, the knowledge of *Srotas* not only helps in deciphering anatomy of transport system of the body but also to understand their physiology and pathology which is the key for success in Ayurvedic treatment. A physician must have a complete understanding of *Srotas*, to approach a patient in a holistic way³⁰.



REFERENCES

1. Shastri A.D, Ayurved *Tattva Sandipika* Hindi Commentary, Susruta Samhita, vol-1, Sutra Sthan 15/48, Edition- 2013, Chaukhamba Sanskrit Sansthan, Varanasi, page no.84.
2. Shastri A.D, Ayurved *Tattva Sandipika* Hindi Commentary, Susruta Samhita, vol-1, Sutra Sthan 24/9, Edition- 2013, Chaukhamba Sanskrit Sansthan, Varanasi, page no. 131.
3. A Sanskrit English Dictionary by Sir Monier Williams, Edition 2007, Bharatiya Granth Niketan, New Delhi. Page.1244.
4. Sharma P. V, Charak Samhita, Vol. – I, *Sharir Sthan* 4/13 Edition 2014, Varanasi: Chaukhamba Orientalia; Page 430.
5. Shastri A.D, Ayurved *Tattva Sandipika* Hindi Commentary, Susruta Samhita, vol-1, Sharir Sthan 9/13, Edition- 2013, Chaukhamba Sanskrit Sansthan, Varanasi, page no. 97.
6. Shastri K.N, Charak Samhita, Chakrapanidatta, *Vidyotini* Hindi commentary *Vimana Sthan* 5/3, Edition – 2012, Chaukhamba Bharti Academy, Varanasi, Page.590.
7. Shastri K.N, Charak Samhita, *Vimana Sthan* 5/3, Edition – 2016, Chaukhamba Bharti Academy, Varanasi, Page.709.
8. Tripathi B. Astang Hridya, *Nirmala* Hindi Commentary, Sharir Sthan 3/40, Edition – 2009, Chaukhamba Sanskrit Pratisthan, Delhi. Page no. 375.
9. Shastri A.D, Ayurved *Tattva Sandipika* Hindi Commentary, Susruta Samhita, vol-1, Sharir Sthan 9/13, Edition- 2013, Chaukhamba Sanskrit Sansthan, Varanasi, page no.97.
10. Shastri K.N, Charak Samhita, *Sutra Sthan* 30/12, Edition – 2012, Chaukhamba Bharti Academy, Varanasi, Page. 584.
11. Bhisagacharya S.S. *Vidyotini* Hindi Commentary, Kashyap Samhita, Sharir Sthan, Edition – 2010, Chaukhamba Sanskrit Sansthan, Varanasi. Page no.77.
12. Tripathi B. Astang Hridya, *Nirmala* Hindi Commentary, Sharir Sthan 3/43, Edition – 2009, Chaukhamba Sanskrit Pratisthan, Delhi. Page no. 375.
13. Tripathi B. AstangHridya, *Nirmala* Hindi Commentary, *Sharir Sthan* 3/41-42, Edition – 2009, Chaukhamba Sanskrit Pratisthan, Delhi. Page no. 375.
14. Shastri K.N, Charak Samhita, *Sutra Sthan* 5/6, Edition – 2016, Chaukhamba Bharti Academy, Varanasi, Page no.710.
15. Shastri A.D, Ayurved *Tattva Sandipika* Hindi Commentary, Susruta Samhita, vol-1, Sharir Sthan 9/12, Edition- 2013, Chaukhamba Sanskrit Sansthan, Varanasi, page no. 95-96.
16. Avhad A. Assessment and evaluation of *Srotomula*, Journal of Indian System of Medicine, 2015. vol 3(4), Page.197-202.



17. Shastri A.D, Ayurved *Tattva Sandipika* Hindi Commentary, Susruta Samhita, vol-1, *Sharir Sthan* 9/13, Edition- 2013, Chaukhamba Sanskrit Sansthan, Varanasi, page no.96.
18. Shastri K.N, Charak Samhita, *Vimana Sthan* 5/7-8, Edition – 2016, Chaukhamba Bharti Academy, Varanasi, Page no. 712.
19. Shukla A. Concept of *srotas* with special reference to clinical perspective, WORLD JOURNAL OF AYURVEDA SCIENCE, e-ISSN 2456-0227, VOL. 1 ISSUE. 1 MAY 2016.
20. Khendkar J. Physiological and Clinical Significance of *Srotas*, International Journal of Health Sciences and Research, ISSN: 2249-9571, Vol.6; Issue: 9; September 2016.
21. Shastri K.N, Charak Samhita, *Vimana Sthan* 5/23, Edition – 2016, Chaukhamba Bharti Academy, Varanasi, Page no. 714.
22. K.N, Charak Samhita, *Vimana Sthan* 5/24, Edition – 2016, Chaukhamba Bharti Academy, Varanasi, Page no. 714.
23. Shandilya P. KHA VAIGUNYA & SROTO DUSHTI, Journal of Sanskrit Samhita Siddhanta, ISSN: 2454-3926, Vol 3|1 Jul - Sept 2017.
24. Shastri K.N, Charak Samhita, *Vimana Sthan* 5/10-22, Edition –2016, Chaukhamba Bharti Academy, Varanasi, Page no.713.
25. Shastri K.N, Charak Samhita, *Vimana Sthan* 5/26-28, Edition –2016, Chaukhamba Bharti Academy, Varanasi, Page no.714.
26. Tripathi R., AstangSamgrah, *Saroj* Hindi Commentary, *Sutra Sthan* 10/74, Eddition – 2011, Chaukhamba Sanskrit Pratishthan, Delhi, Page no.227.
27. Bhisagacharya S.S. *Vidyotini* Hindi Commentary, Kashyap Samhita, *Khil Sthan* 4/4, Eddition – 2010, Chaukhamba Sanskrit Sansthan, Varanasi. Page no. 249.
28. Shastri K.N, Charak Samhita, *Vimana Sthan* 5/31, Edition – 2016, Chaukhamba Bharti Academy, Varanasi, Page no. 712.
29. Shastri K.N, Charak Samhita, *Vimana Sthan* 5/3, Edition – 2016, Chaukhamba Bharti Academy, Varanasi, Page no. 709.
30. Singh RH. Exploring Quantum logic in Ayurveda with special reference to srotovijana of Ayurveda, *Ayu Journal* 2009; 30(4): 360- 368.