

## LITERARY REVIEW OF RAKTA DHATU & RAKTADUSHTI W.S.R. TO IT'S VIKALP SAMPRAPTI

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### ABSTRACT

Blood is an essential component of body. As per ancient Ayurvedic literature, blood is compared with Rakta dhatu. Rakta dhatu – Genesis, quantity, synonyms, characteristics, functions, signs- symptoms of vitiation are mentioned in Charak samhita, Sushrut samhita and Ashtang hruday also. Pathologies related to Rakta dhatu takes place with 3 different ways as follows – 1) Rakta vriddhi (Presence of rakta in excess quantity) 2) Rakta kshay – (Presence of rakta in less than expected quantity) 3)Raktavaha srotas dushti & Raktadushti (Vitiation of Raktavaha srotas). In the present article, an effort is made to analyse all these signs & symptoms as per Vikalp samprapti. Vikalp samprapti is the way to analyse etiopathogenesis of a disease or a sign as per characteristics of underlying body building constituentents. The article is prepared to enlight whole compass of Rakta dhatu & its vitiation. Knowledge of the same will help academicians, researchers and

practitioners.

**KEYWORDS:** Rakta dhatu, Rakta dushti, Rakta vriddhi, Rakta kshay.

It is needless to state importance of blood in human body. It is the body fluid acts as transport medium for nutrients and oxygen. As per ayurved literature blood can be compared to Rakta

dhatu. As mentioned in ancient ayurved literature, Rakta dhatu plays important role in each phase of life.

According to Acharya Sushruta, Rakta dhatu (blood) is responsible for origin (birth), continuation (sustaining) & end (death) of living creatures. Protection of the dhatu is required by every possible mean (procedure).<sup>[1]</sup>

Body needs Vata, Pitta, Kapha, Rakta & food for homeostatic status & deviation from it.<sup>[2,3]</sup> Charak samhita – the most ancient text of Ayurveda, dedicated a whole chapter ‘**Vidhishonitiyam**’ to describe normality & abnormality of Rakta dhatu with treatment. Acharya Charak emphasized importance of Rakta dhatu in treatment of various diseases.

As stated in Sushruta samhita, all body building elements – dhatu are dependant for their nourishment, increment & waning on rakta dhatu.<sup>[4]</sup>

Acharya Charak described ‘Rakta’ as one of the -‘Pranayatan’

### **Nature of ‘Rakta’<sup>[6]</sup>**

Rakta should be regarded as pure when its colour resembles gold, firefly, red lotus, gunja fruit.

### **Synonyms<sup>[5]</sup>**

- i. Asram
- ii. Asruk
- iii. Shonitam
- iv. Rudhir
- v. Lohitam
- vi. Kshatajam

### **Utpatti (genesis/emergence) of Rakta dhatu**

Rakta dhatu is the second most dhatu amongst seven. It is produced in Raktavaha srotas.

When rasadhatu originates in rasvaha srotas, rasadhatvagni act on nutrients from ahar-rasa. After formation of initial dhatu, part of it reaches to the next srotasa i.e. Raktavaha srotas. Raktadhatvagni acts upon nutrients of ahara rasa to give rise to Rakta dhatu proper. During the procedure updhatu & mala of Raktadhatu also get produced. The process of rasagni on aahara rasa produces minute Raktaposhaka part. By the process Raktagni on these small

Raktaposhaka parts i.e. asthaya Rakta dhatu. These parts continue nutrition of sthaya (stable) Raktadhatu further.

Redness of Rakta dhatu is explained due to action of teja portion of ahara rasa & Pitta upon rasa.<sup>[7,8]</sup>

According to Acharya Charak and Sushruta, rasa dhatu gets installed in liver & spleen to get converted into Rakta dhatu. In the living body, teja brings this red colour to fluid & when produced in healthy fashion & in physiological quantity, it is fresh & is called 'Rakta'.

### **Panchabhautika predominance of Rakta dhatu<sup>[9]</sup>**

All five properties of 5 mahabhutas are expressed in blood in the form of different characteristics. Typical smell is due to prithvi, fluid nature due to aapa, red colour due to teja, pulsation felt during blood flow is due to vayu. Akasha contributes lightness of Rakta compare to any other dhatu like maansa, meda etc.

### **Utpattikaala of Rakta**

According to Acharya Charak, production of Rakta dhatu takes place in continues process of formation of dhatu. According to Acharya Dalhana (commentator of Sushrut samhita), production of Rakta dhatu take place after 5 days of rasa production.

### **Raktavaha Srotasa**

All seven dhatavas are present in entire body still a specific dhatu is present in large quantity in some places. These locations are 'moolsthana' of the dhatu/ srotas. Principle organ of Raktavaha srotasa is liver, spleen & Raktavaha dhamanya.<sup>[10,11]</sup>

### **Upadhatu of Rakta**

During formation of dhatu & further nourishment of sthaya dhatu, production of some by-products takes place. These are

Updhatu & mala of the respective dhatu. Upadhatu are unable to produce any body building elements further.

Seera & kandara are upadhatu of Rakta. The concept of 'seera' is co-related to vein and arteries, where 'Kandara' is co-related to tendons.

### **Mala of Rakta**

Pitta dosha is mala of Rakta dhatu. Pitta dosha is described earlier.

**Pramana/ Quantity**

According to Acharya Charak & Vagbhat, quantity of Rakta dhatu in whole body is 8 anjali. (1 anjali). According to Acharya Sushruta, there is no specific pramana of Rakta.

**Rakta- saarata**

Saaratva is nothing but presence of best quality of respective dhatu. In case of Rakta dhatu, the presentation of superior quality takes place in correspondence with attractiveness, redness of ear, eyes, face, tongue, nose, lip, palms soles of feet, forehead, genitals. Rakta saaratva indicated happiness, sharpness, magnitude, tenderness, moderate strength & intolerance to heat.

**Functions of Rakta<sup>[12]</sup>**

- i) Jeevana
- ii) Complexion
- iii) Nourishment of other components

**Rakta dushti hetu**

Dushti includes increase, waning & alteration of properties of certain dosh, dhatu or mala. In case of Rakta dhatu signs & symptoms of vruddhi (increase), kshaya(waning), Raktavaha srotas dushti & Rakta dushti are considered. Causes are as follows-

**Etiological factors causing vitiation of Raktavaha srotasa<sup>[13]</sup>**

Vitiation of Raktavaha srotasa takes place due to following causes –

**i) Vidahi annapaana**

Food items (both solid & liquid) causing burning or inflammation. Vidahi anna includes – spices, pungent food items. Vidahi paana include beverages like liquor, cold drinks, tea.

**ii) Snigdha**

Over consumption of food assorted with fatty substances like butter, ghee, oil. Such edible items consumed mostly are cheese, paneer, butter, ghee, oil, chocolates, sweets prepared by milk products.

**iii) Ushna**

Excessive intake of food with hot potency like chili, pepper, spices.

**iv) Drava**

Consumption of liquids more than requirement. It includes water, tea, coffee, liquid content of food.

**v) Aatapa- anala sevana**

Keeping self in close vicinity with heat including flame, sunbeams for long duration.

**Etiological factors vitiating Rakta<sup>[14,15,16]</sup>**

These causes can be classified as follows –

**I) Dietary causes**

- i) Excessively salty
- ii) Excessively pungent
- iii) Excessively sour
- iv) Excessively spicy
- v) Excessive liquid, fatty food, heavy.
- vi) Kulatha
- vii) Mash (Urad)
- viii) Nishpav
- ix) Pindalu(Onion)
- x) Mulak (Daikon)
- xi) Flesh of animals from sea, river, lake
- xii) Flesh of animals with large size
- xiii) Flesh of animals living in burrows.
- xiv) Abolished liquor in more than expected quantity.
- xv) Til-tail (Seasum oil)
- xvi) Dadhi (Curd)
- xvii) Mastu (Watery part of Curd)
- xviii) Viruddhanna
- xix) Spoiled food

**II) Improper code of conduct**

- i) Bhuktva divaswapa (Sleeping in day time after having food)
- ii) Adhyashana (Having excessive food)
- iii) Ajeernashana (Having food even in case of indigestion)
- iv) Close contact with heat for long duration

- v) Resistance to urge of vomiting
- vi) Over physical excretion
- vii) Trauma

### III) Psychological

Irritable nature.

During Sharad riutu (September- October) vitiation of Rakta takes place naturally.

#### Signs and symptoms of Raktadushti<sup>[17,18,19]</sup>

#### (Shonitaja Roga & Raktavaha srotodushti lakshane<sup>[20,21]</sup>

In ancient texts, numerous signs & symptoms of Raktadushti are mentioned. During diagnosis of any disease one has to think analyse characteristic of each dosha and define exact cause of vitiation of dosha. The diagnosis scheme is labeled as Vikalpa samprapti. An effort is made to analyse signs and symptoms of raktadushti as per vikalp samprapti.

These are classified according to altered characteristic of Rakta. -

Gunavikriti	Sthanik	Sarvadehika
Ushnatva	Mukhapaaka	Visarpa
	Akshiraaga	Raktapitta
	Vidradhi	Vidradhi
	Vaivarnya	Vaivarnya
	Gudapaaka	Pipasa
	Medrapaak	Annapaan vidah
	Tila	Santapa
	Nilika	Raktapradar
	Piplu	Swedadhikya
	Kalaka	Raktameha
		Kamala
	Krodhadhikya	
Visratva	Putighrana	Shariradaurgandhya
	Aasyagandhita	
Dravatva	Lavanasyata	Tikt-amlodgar
		Raktapitta
Kledadhikya	Upakusha	Kushtha
	Pramilaka	Visarpa
	Pleeha	Sammoha
	Kandu	Swedadhikya
	Charmadala	Nidratiyoga
		Shvitra
	Tandratiyoga	
Tridoshadushti	Swarakshaya	Kushthhha
	Pleeha	Klama

	Pitika	Mada
	Charmadala	Vatarakta
	Kotha	Shvitra

### Rakta vruddhi Lakshan<sup>[22,23]</sup>

Rakta vruddhi is explained in term of volume or characteristic or both. Signs & symptoms are classified as above.

Gunavikriti	Sthanik	Sarvadehika
Ushnatva	Akshiraag	Visarpa
	Visarpa	Raktapitta
	Vidradhi	Vidradhi
	Vyanga	Vaivarnya
	Rakta-tvaka	Raktameha
		Kamala
Dravatva	Sirapurnatva	Raktapitta
Kledadhikya		Kushtha
		Vatarakta
Tridoshadushti		Kushtha
		Agnisaada
		Sammoha

### Signs and symptoms of Raktakshaya<sup>[24,25,26]</sup>

Rakta kshay can be explained in term of volume or characteristic or both. Signs & symptoms are as follow -

- i) Ruksha tvak
- ii) Parusha tvak
- iii) Sphutita tvak
- iv) Mlan tvak
- v) Amlapriti
- vi) Shishir priti
- vii) Sirashaithilya
- viii) Rukshata

### Treatment of Raktadushti<sup>[27]</sup>

- i) Treatment of RaktaPitta – treatment by snigdha, sheet drugs
- ii) Virechana
- iii) Upavasa - fasting
- iv) Raktamokshana- blood letting

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