



Review Article

Review Article of *Rakta Dhatu* - Ayurvedic and Modern View

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Abstract	Manuscript Information
<p>Generally, there are seven <i>dhatu</i>s in the body. Rakta dhatu is one of them. The term “Rakta” translates to “red” and signifies the characteristic color of blood. Pitta plays a major role in this Dhatu. When Rakta Dhatu is deficient or of poor quality, it may manifest as symptoms like anemia, fatigue, pale complexion, poor circulation, and weakened immune function. Excessive accumulation or vitiation of Rakta Dhatus can contribute to inflammation, bleeding disorders, skin disorders, and various blood-related diseases. As Rakta Dhatu is related to Pitta when it is excess the heat increases in the body and when the Dhatu depletes the heat also decreases. Rakta dhatu is a preserver of life. It is also related to Pitta dosha that’s why It is important to maintain Pitta in our body. So, this paper aims to present the details of <i>Rakta dhatu</i>.</p>	<ul style="list-style-type: none"> ▪ ISSN No: 2583-7397 ▪ Received: 20-11-2024 ▪ Accepted: 08-01-2025 ▪ Published: 17-01-2025 ▪ IJCRM:4(1); 2025: 36-39 ▪ ©2025, All Rights Reserved ▪ Plagiarism Checked: Yes ▪ Peer Review Process: Yes
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KEYWORDS: *Dhatu, Rakta, Doshaja, Pitta dosha*

INTRODUCTION

As we know, Rakta Dhatu is constituted from the Rasa Dhatu. Its function is Jeevanam which means it is important for our life and nourishes the body. So, it is Life-saving *dhatu*. As per modern aspects, it also carries oxygen and glucose all over the body that’s why it is important for our life. It is also made up of fire and has all the qualities of *Pitta dosha*. So, we can say, it is also responsible for the status of Pitta in our body. *Rakta Dhatu* also carries fire in the body and mind. So, when *Rakta dhatu* is normal, a person will be healthy with full of energy but when *Rakta dhatu* is disturbed, a person will be pale with coldness and low energy due to the involvement of Pitta. Also, other symptoms will be constipation with low urination and sweating. When it is in excess level, a Person will be in a high temperature due to excess heat or Pitta in the body. Other symptoms will be

redness of the eyes, and skin, frequent urination, and defecation. There is dominancy of Agni Maha Bhuta in *Rakta dhatu*. So, it has these properties-

- Red color (*raga*),
- Unctuous (*snigdha*),
- Pulsation(*spandanam*)
- Smell (*vistrata*),
- Liquidity (*Traviata*),
- Lightness (*laghuta*)
- *Anushna-sheeta*,
- Sweet (*madhura*),

MATERIALS & METHODS

Ayurvedic and Modern view of *Rakta dhatu*. So, details of *Rakta dhatu* are as follows -

रक्त धातु

रसादत्त.....प्रजायते ।।

चचि 15/15, सू.स. 14/10

रस के प्रसादांश में रक्ताग्नि की क्रियास्वरूप रक्त की उत्पत्ति होती है। रक्त रंजक पित्त के द्वारा लाल रक्त में परिवर्तित हो जाता है। यह प्रक्रिया यकृत प्लीहा में संपन्न होती है।

Origin

As we know *Rasa dhatu* and *Anna rasa* transformed into *Rakta dhatu* with the help *Ranjaka Pitta*. So, *Rasa dhatu* also gives nutrition to the *Rakta dhatu* that we can see in modern science because Blood is the combination of Plasma (Fluid) and blood cells. *Rakta dhatu* mainly formed in the Liver and Spleen by the above process. [Su.Sa.Sutra Sthana 14/4-5]

As per modern aspects

Bone marrow: The main site of the formation of blood cells

Liver: The main site for maturation of blood cells

As per the Ayurvedic view

Tendons (*kandara*) and veins (*sira*) – Byproducts (*upadhatu*). [Cha. Sa.Chikitsa Sthana 15/17]. Menstrual blood (*artava*)- by-product. [Sha. Sa. Purva khanda chapter 5] Quantity of rakta - eight anjali.

रक्त का स्वरूप

- सुवर्ण की आभा वाला,
- मधुर एवं लवणरसयुक्त
- अलक्तक लाख में रंजित रूठ के समान
- शीतोष्ण
- भेड़ अथवा शशक के रक्त के समान,
- वीरबहूटी, लाल कमल के समान
- असंहत (गाढ़ा) होता है।

रक्त के कार्य

- स्पर्श ज्ञान कराता है।
- धातुओं का पोषण करता है,
- मांस को पुष्ट करता है,
- प्राणों का धारक है।
- शरीर का मूल है।

Functions:

- Primary site of pitta dosha.
- Sustaining vitality (*jeevana*),
- Giving life
- Enhancing complexion (*varna prasadana*),

शरीर में रक्त का अञ्जलि प्रमाण

अष्टौ (अजलयः) शोणितस्य । च. शा. 7/18

रक्त का शरीर में आठ अंजलि प्रमाण होता है।

रक्तवृद्धि के लक्षण

- उच्च रक्तदाब का होना।
- निद्राधिक्य
- शरीर तथा नेत्रों में सामान्य से अधिक लाली का आ जाना

- रक्तवाहिकायें, रक्त से भर जाती हैं।
- शरीर में जलन होती है।

कुष्ठवातात्रपित्ताग्निगुल्मोपकुशकामलाः ।
व्यंग्गामिनाशसम्मोहरक्तत्वड नेत्रमूत्रताः ।।

अ. ह. शा. 11/9

रक्तक्षय के लक्षण

- मूर्च्छा आ जाती है ।
- त्वचा मलिन, रुक्ष, फटी हुई सी हो जाती है।
- मधुर एवं अम्ल पदार्थों के सेवन की इच्छा होती है।

अत्यधिक रक्तस्त्राव से हानि

आन्ध्यमाक्षेपकं तष्णां तिमिरं शिरजो रुजम् ।
पक्षाघातं श्वासकासौ हिक्का दाहं च पाण्डुताम् ।।
कुरुतेऽतितं रक्तं मरणं वा करोति च ।।

शा. उ. 12/38

- अन्धापन,
- आक्षेपक,
- प्यास,
- तिमिर,
- शिरोव्यथा,
- पक्षाघात,
- श्वास, कास, हिक्का,
- दाह,
- पाण्डुता हो जाती है।
- अत्यधिक रक्तस्त्राव के कारण मृत्यु भी हो जाती है।

दूषित रक्त

इसके कारण निम्न हैं –

- अग्नि या सूर्य के ताप के अतिसेवन से,
- द्रवपदार्थों के अतिसेवन से,
- पित्त प्रकोपक पदार्थों के अतिसेवन से
- दिन में अधिक सोने से,
- बहुत क्रोध करने से,
- स्निग्ध, गुरु आदि के अतिसेवन से,
- अभिघात चोट लगने, आदि के कारण रक्त प्रकुपित हो जाता है।

रक्तदोषज के रोग

वक्ष्यन्ते रक्तदोषजाः ।

कुष्ठवीसर्पपिडका रक्तपित्तमसृग्दरः ।।
गुदमेद्रास्यपाकश्च प्लीहागुल्मोऽथ विद्रधिः ।।
नीलिका कामला व्यंगं पिप्लवस्तिलकालकाः ।।
दद्रुश्चर्मदलं शिवत्रं पामाकोढास्त्रमण्डलम् ।।
रक्तप्रदोषाज्जायन्ते ।।

च. सू. 28/10-12

तिल, दद्रु, चर्मदल, कुष्ठ, गुल्म, शिवत्र, पामा, कोढ़, रक्तमण्डल, विसर्प, पिडका, रक्तपित्त, रक्तप्रदर, गुदपाक, नीलिका, मुख के अतिरिक्त स्थानों पर व्यंग, कामला, व्यंग, पिप्लू, तिलकालक, लिंगपाक, मुखपाक, प्लीहावृद्धि, आदि रोग रक्त की दुष्टि से उत्पन्न होते हैं।

रक्त का मल

किड्मसृजः पित्तम् ।।
रक्त का मल पित्त है।

रक्त की उपधातुयें

कण्डरा तथा सिराएं।

असृजः कण्डरा सिरा—सम्भवः ।।

च. चि. 15/16

Modern View Blood

It is fluid that contains 55% of the plasma and 45 % of Blood cells like RBCs (red blood cells), WBCs (white blood cells), and platelets. On average adult body maintains 5-6 litres of blood. The main function of the blood is to Carry and deliver Oxygen and nutrients all over the body. It is the main part of the circulatory system. It also takes away the by-products in our body from healthy tissues. Albumin protein is the chief component of Blood plasma and it controls the osmotic pressure of blood. In all living organisms, RBCs are the main blood cells. It contains mainly Haemoglobin protein that binds with Oxygen. So, it is responsible for transporting oxygen all over the body that's why blood is an important component in our lives. Here carbon dioxide is usually transported extracellularly.

So lastly, we can say, there are four main components of Blood-

- White blood cells,
- Plasma,
- Platelets.
- Red blood cells,

Functions

- Removing waste products
- Maintaining body temperature
- Delivering oxygen and nutrients to all cells
- Forming blood clots
- Carrying blood cells

Red Blood Cells (also called erythrocytes or RBCs)

Important points are as follows -

- Production is controlled by the erythropoietin hormone
- Maturation in 7 days
- Cells have no nucleus
- Survives on average only 120 days.
- Bright red color, due to red cells
- most abundant cell in the blood,
- Shape - biconcave disk with a flattened center
- Immature cells in the bone marrow
- Contain a special protein called hemoglobin,
- Blood appears red because of the large number of red blood cells,

White Blood Cells (also called leukocytes)

Important points are as follows -

- A major type of white blood cell is a lymphocyte.
- T lymphocytes help regulate the function of other immune cells
- B lymphocytes make antibodies,
- Much fewer in number about 1 percent of your blood.
- The most common type of white blood cell is the neutrophil,
- Each neutrophil lives less than a day,
- Important points are as follows -
- Protect the body from infection.

- Bone marrow must constantly make new neutrophils

Platelets (also called thrombocytes)

Important points are as follows -

- It is small fragments of cells.
- Unnecessary clotting, which can lead to strokes and heart attacks;
- Antiplatelet therapies,
- Help the blood clotting process (or coagulation)
- Fibrin clot, which covers the wound and prevents blood from leaking out.

Blood has many functions, including

Transport: Blood carries oxygen and nutrients to the body's tissues and lungs, and transports waste products to the kidneys and liver for filtering.

Clotting: It prevents excessive bleeding due to the blood clot process.

Protection: Blood protects the body from disease-causing pathogens. It also carries cells and antibodies that fight infection.

Temperature regulation: Blood helps maintain body temperature.

Digestion: Blood plays a role in digestion by transporting nutrients absorbed from the small intestine.

Hormone transport: It transports all hormones all over the body.

pH regulation: Blood regulates pH.

Electrolyte regulation: Blood regulates electrolytes.

Fluid loss regulation: Blood regulates fluid loss, also known as homeostasis.

CONCLUSION

It is fluid that contains 55% of the plasma and 45 % of Blood cells like RBCs (red blood cells), WBCs (white blood cells), and platelets. On average adult body maintains 5-6 litres of blood. The main function of the blood is to Carry and deliver Oxygen and nutrients all over the body. It is the main part of the circulatory system. It also takes away the by-products in our body from healthy tissues. According to Ayurveda, It is one of the Dhātu that is *Rakta dhātu*. It protects and preserves our life. So, we have to protect it from bleeding, etc.

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