



Review Article

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A REVIEW STUDY ON VATARAKTA W.S.R TO GOUT

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ABSTRACT

Vatarakta is the most common example of *Vata Vyadhi* produced by the *Avarana Samprapti*. The vitiation of *Vata* and *Rakta* leads to *Vatarakta*. The passage of aggravated *Vata* is blocked by vitiated *Rakta*, resulting in *Vata* becoming more aggravated. As a result, exacerbated *Vata* vitiates *Rakta* and causes *Vatarakta*. Small joints in the hands and feet get injured first. The disease then spreads like rat poison through the entire body. Both the *Viruddha Ahara* and *Vihara* will lead to this condition. *Vatarakta* is one of the diseases where dietary habits, social structures, ways of life, and environments that are presently adversely affecting human health. The *Vatarakta Nidana* and *Lakshana* are comparable to the clinical appearance of Gout as described by contemporary medical science. Gout is an inflammatory reaction to Mono Sodium Urate crystals that develop as a result of hyperuricemia. Acute synovitis, persistent erosive and deforming arthritis, tophi, nephrolithiasis, and interstitial nephritis are the main clinical symptoms. Age and gender have an impact on the mean serum uric acid (urate) content.

Keywords: *Vatarakta*, Gout, *Vata dosha*, *Rakta dhatu*.

INTRODUCTION:-

Ayurveda, The “ Science of life “ or longevity is the holistic alternative science since era. It not only deals with curative aspects of the disease but also the preventive measure with which one can prevent the manifestation of the disease. Human population is becoming susceptible to many disorder related with altered lifestyle and poor food habit. *Vatarakta* in one such metabolic disorder. It is Major example of *vatavyadhi* caused due the *Avaran* pathology. *Vatrakta* is *Sammurchana* janit (combined) *vyadhi* of *Vata & Rakta*¹. The aggravated *Vata* is being obstructed in its passage by *dushit Rakta*, the Stagnant *Vata* Contaminates the whole

blood, thus the Contaminates *Vatarakta* is known as Various name mainly, *Vatabalas* & *Aadhyavata* etc². Etiological factor of *Vatarakta* are described in detail in *charaka samhita* out of which *lavan*, *Amla*, *katu*, *ushna*, *kshar*, *sinagdh* & uncooked food, having high protein, curd, buttermilk, sura etc. The etiopathogenesis starts with specific Causative factor being both *Vata* and *Rakta*. The *Sushamtva* and *chalatwa guna* of *Vata* circulates through *sandhi* and all *shrotas*, similarly *Rakta* Because of its *Drava* and *Sara guna* circulates all over, its first forms the root in the small joints of the hand and feet, then spreads throughout the body and causes severe pain like *akhuvisha*. Clinical sign and symptom of *Vatarakta* like *kandu*, *daha ruja*, *toda*, *twakavaivarnya*, *Shotha*, *paka*, *shool*, *sandhi-graha*. The factors *Vata* and *Rakta* in a diseased state is called as *Vatarakta*.³ Clinical features of *Vatarakta* are similar to gout, hence it can better be correlated with gouty arthritis in Contemporary science. Gout is a clinical syndrome and is a type of Metabolic disorder, in which clinical manifestation are associated with tissue deposition of crystal of Monosodium urate monohydrate from hyperuricemia of body fluids. In 21st century, gout is most common inflammatory arthritis in men and in postmenopausal women. It also known as “disease of king’s and also “king of disease”⁴. Gouty arthritis affects 2.1 million worldwide, recent reports for the prevalence. Gout is a metabolic disease most often affecting middle aged elderly men and postmenopausal women. Hyperuricemia is the biologic hallmark of gout. When present, plasma and extracellular fluids become supersaturated with uric acid, In gout, pain mostly affects the small joints especially the big toe⁵. About 75% of all Gout pains originate in the big toe.

DEFINITION:

Shabda Kalpa Duram states that *Vatarakta* as the disease characterized by the abnormality of *Rakta dhatu* due to morbidity of *Vata dosha* is called as *Vatarakta*⁶.

The illness caused due to *Vata dosha* and *Rakta dhatu* is called as *Vatarakta*⁷. The disease characterized by unique pathology of *Vikruta Vata Dosha* and *Rakta Dhatu* is called as *Vatarakta*.⁸

In *Vatarakta* severe pain will be there, swelling of joints appear dry, black, increasing and decreasing often, if *Rakta* is affected profoundly, the swelling will be having severe pain, pricking or a feeling of pain and needles.

Vruddha Vata dosha when obstructed by vitiated *Rakta Dhatu* further becomes virulent and once again adds to the abnormality of *Rakta Dhatu*, this illness is called as *Vatashonita*⁹.

When vitiated *Rakta dhatu* hampers morbid *Vata dosha* from spreading everywhere and further worsening *Rakta dhatu's* abnormality, the condition is termed *Vatarakta*.¹⁰

Sushruta Samhita:- *Vatarakta* has been first time described in *Sushruta Nidan sthan*. Pain of *Vatarakta* has been described by the term *akhuvisha*.

Charaka Samhita:- Name of *Vatarakta* and its classification is described in *asthodariya adhyaya* of *sutra sthan* and detail description in *Vatashonita adhyaya* of *chikitsa sthan*. *Vatarakta* is also known as *Adhyavata*, *Vatabalas*, *khudd roga*.

Vatarakta is classified in two type - *Uttan* & *Gambhir*.

SYNONYMS:

The diseases *Vatarakta*, *Adhyavata*, *Khudha-Vata*, *Vatabalas*, and *Vatashonita* are used as synonyms.

CAUSE OF VATARAKTA:

1. **Aharaj (Dietary Cause)** - This includes *Virudha Ahara* (mismatched diet) and *Acharya Charak* also mentioned the same regarding *Virudha Ahara*, such as *Adhyasana*, which refers to having food after a meal, Excessive intake of *Lavana*, *Amla*, *Katu foods*, *Alcohol* and *Ama Bhojana*, which means consuming food while the previous meal is not fully digested, *Ajeerna Bhojana*, which implies a persistent difficulty in digestion, *Guru*, indicating a heavy meal, *Snigdha Bhojana*, which stands for oily food, *Ati Rukshanna*, meaning excessive intake of dry food, etc. All these factors contribute to *Agnimandya* (loss of appetite), which eventually leads to *Vatarakta* (Gout). According to *Madhava Nidan* *Vata* is very predominant then pulsating tearing /cutting form of severe pain will be there, swelling of joints appear dry ,black, increasing and decreasing often ,if *Rakta* is affected profoundly ,the swelling will be having severe pain, pricking or a feeling of pain and needles .

2. **Viharaj Hetu:** *Prajagara*, *Hasti-ashva-Ustrayana*, *Abhighata*, *Vidhiheena Svapna*, *Vidhiheena-Maithuna* , *Mithya Vihara*, *Plavana*, *Langana*, *Ati Adhva*, *Vyayama Vaishamya*, *Vega Nigraha*, are all causative factors for aggravation of *Vata*¹¹. *Divasvapna* after taking *Drava*, *Singdha* and *Guru Ahara* leads to vitiation of *Rakta*¹². *Achankramana sheelata* is a type of *vihara* that leads to accumulations of *Kapha*. *Sthoola*, *Sukumara* and *Sukha* are predominant of *Kapha* and *Meda* may be one among *Vatarakta Kara nidana*.

3. **Mansika Hetu:** *Krodha*: *Krodha* is one of the *Manasika* factors, along with *Chinta*, *Shoka*, *Bhaya*, *Santapa* and *Udvega* that cause aggravation of *Vata*. *Krodha* aggravates *Rakta* also¹³. *Anyanidana*: Suppression of natural urges of flatus, urine, faeces, semen ,vomiting etc. aggravates *Vata* and is considered as one among *Nidana of Vatarakta*. Along with the above factors, there are other factors also which cause the direct vitiation of *Rakta*, such as *panchakarma Apachara* and *Abhighata*.

SAMPRAPTI:

Samprapti is a crucial step in the manifestation of a disease without which no disease is produced. In total *Samprapti* describes the whole process through which a disease occurs in the body. According to *Vagbhata* "*Dosha Dushya Sammurchana*" leads to manifestation of disease¹⁴. One more classical definition of *Samprapti* is, the vitiated *Dosha*, travelling all over

the body, gets lodged at the point of “*Sanga*” because of *Kha- Vaigunya* leading to manifestation of disease¹⁵. The knowledge of *Samprapti* is essential to break the chain of pathogenesis. According to *Charaka* excessive intake of *Lavanarasadi ahara* etc and if one met with trauma (*Abhighata*) are not undergoing *Shodhana* for cleansing the body lead to vitiation of *Rakta*, with such predisposing condition if a person involves in the activities like, intake of food with *Kashaya*, *Katu* and *Tikta Rasa*, taking *Alpa Ahara* and *Rooksha Ahara* on indulging in fasting, riding on horse, camel, donkey etc. swimming and other water sports, jumping, walking long distances in the hot sun, indulging in excessive sexual activities, withholding the *Vega* etc *Vata dosha* gets aggravated. *Vata* is blocked by the vitiated *Rakta*, in turn leading to further Sandushana of *Data*, thus *dushita Vata* does *Dusti* of whole *Rakta*, leading to the condition *Vatarakta*¹⁶.

SYMPTOMS OF VATARAKTA:

Full manifestation of signs & symptoms is called as *Rupa*. This is the stage when the disease comes out with full signs and symptoms indicating the specific characteristics of the disease like the dominance of *Doshas*, various stages etc¹⁷.

Uttana Vatarakta: In *Uttana Vatarakta*, *Uttana Dhatu* that is the *dhatu* which are superficial gets affected. It includes *Rasa* (*Twak*), *Rakta* and *Mamsa*. When the *Doshas* affects these *Dhatu* in the disease pathology exhibit a particular set of *Lakshana*, which are peculiar for the *Uttana Vatarakta*. According to *Charaka*, the *Uttana Vatarakta* is characterised by *Kandu*, *Daha*, *Ruk*, *Ayama*, *Toda*, *Sphurana*, *Akunchana*, *Shyavarakta* or *Tamrata* of *tvak*¹⁸.

Gambhir Vatarakta: In *Gambhira Vatarakta* the disease spreads into the *Dhatu* which are deep seated. These include *Meda*, *Asthi*, *Majja* and *Shukra*. The involvement of these *Dhatu* exhibits the *Lakshana* that are peculiar to the *Gambhir Vatarakta*. Chronicity and involvement of *Meda*, *Asthi*, *Majja* and *Shukra Dhatu* indicates the severity of disease and generally associated with systemic involvement.

According to *Charaka* the *Gambhir Vatarakta* presents with *Shotha-Sthabhata*, *Kathinatha*, *Antha-bhrusha-arti* (severe pain felt internally), *Vaivarnya* of *Shyava* or *Tamra Varna*, *Daha*, *Toda*, *Sphurana*, *Paka*, *Ruk* and *Vidhaha*. The *Vayu* travelling all over enters *sandhi*, *asthi* and *majja* to produce *Kanja* and *Pangu*¹⁹.

TREATMENT OF VATARAKTA:

The principle of treatment is classified in *Ayurveda* as *Nidana Parivarjana*, *Shodhana*, and *Samshamana*. The treatment is given on the base of *Rogabala*, *Rogibala*, *Kala*, *Vaya*, *Agni* and *Desha*. Treatment strategies aimed at breaking the *Samprapti* and addressing the *dosha* are part of the management of *Vatarakta*. Depending on the basic classification of *Vatarakta*, general line of management of *Vatarakta* has been advised in the texts of *Charaka*, *Sushruta*, *Vagbhata*, *Yogarajnanaka* and *Bhava Prakasha*. Specific line of treatment²⁰: According to

Charaka, *Vatarakta* has two kinds of diseases, hence two different approaches to therapy should be used. In *Uttana Vatarakta*- *Alepa*, *Abhyanga*, *Parisheka*, *Upanaha*. In *Gambheera Vatarakta*- *Virechana*, *Asthapana*, *Snehapana*.

There are two ways that *Vatarakta*(Gout) can be treated in *Ayurveda*. According to *Charaka*, almost all diseases can be treated in three ways:

1. *Apakarshana (Shodhana)*: This entails using detoxification treatments to eliminate the causing *dosha*. In the case of *Vatarakta*, when the vitiated *doshas* are located in the *amashaya* (stomach), *vamana* (therapeutic emesis) - considered the best treatment. If the vitiated *doshas* are located in the *Pachyamanashya* (small intestine), *virechana* (therapeutic purgation) is recommended. And if the *doshas* are situated in the *Pakwashya* (colon), *vasti* (therapeutic enema) is the ideal therapy.
2. *Prakritivighata (Shamana)*: To calm the *doshas*, this entails using medications whose characteristics are the opposite of those of the causing elements. These drugs, known as *dosha shamaka*, are used in *shamana chikitsa* (palliative treatment). Various drugs with Vata Rakta shamaka properties have been mentioned in Ayurvedic texts for the treatment of *Vatarakta*.
3. *Nidana Parivarjana*: This entails staying away from the things that cause the illness to develop. Sushruta was the first to describe the role of *nidana parivarjana* in pacifying the *doshas* that cause the disease. Therefore, it is important to avoid causative factors such as improper dietary habits and lifestyle practices. Foods and activities that are *Guru*(Heavy), *teekshna*, *vidahi*, *vishtambhi*, and *vatavardhaka* (increasing *Vata*) should always be avoided in the case of *Vatarakta*. In summary, *Ayurvedic* treatment of *Vatarakta* involves detoxification therapies to remove the causative *dosha*, the use of drugs to pacify the *doshas*, and avoiding factors that contribute to the development of the disease. In addition to following certain dietary recommendations, these ideas can aid in the management of *Vatarakta*.

SADHYASADHYATA²¹:

Analysis and appropriate therapy are essential to the management of a condition. Even before beginning the therapy of an illness, it is essential to evaluate the situation and identify the *Sadhyasadhyata*. The existence or absence of *Upadravas*, as well as the severity of the illness, together impact the *Sadhyasadhyata* of the condition. As *Vatarakta* is one of the illnesses that impact the *Madhyama Roga Marga*, the disease may be referred to as *Kruchra Sadhya* or *Asadhyata*. Furthermore, the prevalence of *dosha* and duration of the evolving of the disorder has progressing have a significant influence. The *Sadhyasadhyatha* of *Vatarakta* depends upon the following categories:

1. Based on vitiated *Doshas*.

2. Based on presence or absence of *Upadravas*.

3. Based on *Kala* (time).

Sadhya:

- If *Vatarakta* caused by only one *Dosha*.
- No *Upadravas*.
- Freshly occurred.
- If patient is strong, who have good will power & with proper availability of medicaments.

Yapya:

- If caused by two *Doshas*.
- Without *Upadrava's*.
- Which is of one year duration.
- If patient is strong, self -controlled & with sufficient means.

Asadhya:

- If involvement of three *doshas*.
- Associated with *Upadravas*.
- Having complications like *Ajanusuptitha*²² etc.

***Pathya-Apathya*²³:**

Pathya is a term used to describe a diet that is *hita* (wholesome) for the body's *srotas*. It is a factor that is favourable to the *shareera patha-srotas* as well as *manas*, according to the *Charaka Samhita*. Treatment of the illness is unsuccessful when medication is administered without advised of *pathyapathya*.

Pathya Ahara: Suka Dhanya Varga: Shastika shali (oryza sativa grown in 60 days), *Yava* (Hordeum vulgar), *Godhuma* (Triticum vulgare).

Shami Dhanya Varga: Mudga (Phaseolus trilobus) *Kulatha* (Dolichos biflorae), *Masha* (Phaseolus mungo)

Mamsa Rasa Varga: Gramya mamsa (meat of domestic animals), *Jangala mamsa* (meat of wild animals), *Bileshya mamsa* (meat of subterranean cave animals or burrowing animals)

Gorasa Varga: Kshira (milk), *Gritha* (ghee), *Takra* (butter milk)

Jalavarga: Ushnajala (hot water)

Phala varga : Bimbi (Coccinia indica), *Bijapura* (Citrus medica) *Madhuvarga: Madhu* (honey)

Ikshu Varga: Dishes prepared of sugar Taila varga : Madhu (honey) *Tila taila* (Sesamam oil),

Sarshapa taila (Mustard oil), *Harita Varga: Jivanthi* (*lepta denia terniculata*), *Maricha* (*piper nigrum*), *Shunti* (*Zingiber officinale*), *Mulaka* (*Raphanu sativus*), *Balamula* (root of *Sida cordifolia*) *vataraktamardha* (*cassia occidentalis*), *yusha* (soup) prepared with *Pippali* and *kshara* (alkali), *Yusha* (soup) prepared with *Kulath & Mulaka*. Food habit: *Laghuvanna* (light diet) *Pathya Vihara*: Sound sleep during night, Warm weather, pollutant free Environment.

APATHYA AHARA:

Suka Dhanya Varga : *Tila* (*Terustroemia sylvatica*), *Saktu* etc.. *Shami Dhanya Varga* : *Mamsa rasa Varga* : *Gorasa Varga Jala Varga Phala Varga Ikshu Varga Taila Varga* Food habit : *Masha* (*vigna mungo*), *Nisphava* (*Lablab purpurens*), *Kalaya Kulattha* (*Vigna unquiculata*) etc. *Matsya* (fish), *andaja and anupa mamsa Dadhi Dusta jala, sheeta jala. Amlaphala Ikshu Tila Taila Madhura rasa* (sweet), *snigdha* (unctuous) *guru* (Heavy) *Picchila* (slimy) *Pistanna* (dishes prepared out of flour of cereals) .

APATHYA VIHARA:

Maithuna (sexual intercourse), *Dhumasevana* (smoking), *Dushta pavana rajo marga nishevana* (walking on polluted air), *Vegavarodha* (suppressing of natural urges)—this is about the *pathya* and *apathya* to be followed in a usual case of *Vatarakta*,

DISCUSSION AND CONCLUSION:

The cause of the disease, also known as the disease's *Nidana*, is the factor that always contributes to pathogenesis. By considering *Nidana* by different views, *Vatarakta* has a long list of etiological factors, but for simple understanding, the whole *Nidana* can be divided into *Vatacara Nidan* and *Rakta-Dusthikar Nidana*²⁴. *Rakta Dhatu* is the *Dushya* of *Pitta dosha*, and according to *Dosha-dushya Ashray-ashrayibhava*, the vitiation of *Rakta Dhatu* also results from the aggravation of *Pitta dosha*. Therefore, the *Pittavardhaka* etiological factors at last lead to *Rakta dhatu vitiation* and predispose the individual to the subsequent disease process. Excessive intake of *Lavana*, *Amla*, *Katu*, and *Kshara*-containing foods causes the *Vata Rakta*. These substances are *Agni Mahabhoota Pradhana*, which leads to the *Vidagdghata* of *Rakta* and aggravates the *Vata Dosha*²⁵. *Singdha*, *Ushna* and *Ajeerna Bhojan* are the causes of *Agnidusthi*, *Pittavidagdghata* and *Tridosha Prakopa*²⁶. *Prajagaran*, *Hasti-Ashva-Ustrayana*, *Abhighata*, *Vidhi Heena Maithuna*, *Mithya Vihara*, *Plavana*, *Langhana*, *Ati Adhva*, *Ati Vyayama*, and *Vega Nigraha* are all responsible for aggravating *Vata dosha*. After taking *Drava*, *Snigdha*, and *Guru Ahara*, *Divaswapna* causes *Pitta* and *Kapha* to become vitiated²⁷. *Sukumaranam Achankramanasheela* is prone to developing *Rakta Dusti* while leading a life of luxury without indulging in any physical activity and tending to frequently consume an excessive amount of sweets.

Acharya Charak probably gave a thorough description of *Vatarakta* and its treatment strategy because of the disorder's prevalence and importance. *Anup Desha* is regarded by *Acharya*

Charak as an *Ahita Desha*, and living there increases the chance of *Vatarakta*. If all other forms of treatment are unsuccessful, *Acharya Kashyap Pathya ahar* and *vihar* also play important roles in managing *Vatarakta*. "By performing appropriate diet and mode of life, practicing exercises, restraining greed, having self-control, and being truthful, the disease subsides." suggests changing the place.

CONCLUSION:

Vatarakta is the most common *Vata Vyadhi* produced by the *Avarana Samprapti* as described by *Acharya Charaka in Chikitsa sthan so Vata, Pitta Parkopak and Rakta Dusthi Nidana* plays significant role in the manifestation of *Disesae*.

Stress, irresponsible eating, and bad lifestyle choices can all contribute to *Vatarakta*, an extremely bothersome illness. While vitiations of *Vata and Rakta* may also be linked to *Vatarakta*, vitiation of *Vata and Rakta* is necessary for its development. *Vatarakta* in modern view has similarity with Gout. The similarity of gout with that of *Vatarakta* is multidimensional. The cause, pathology, and features match with the *Vatarakta* description in our classics.

Basically, it is a metabolic disorder presenting with the sign and symptoms in the joints. This is because of the deposition of the Monosodium urate crystals in and around the joint structure. The simultaneous vitiation of *Vata and Rakta at Sandhi* produces a slow pathology which involves *Vatahara* and *Rakta Prasadaka* remedies as *Chikitsa*.

Follow the *Pathya* and *Apathya Aahar* and *Vihara* mentioned in classics, i.e. *Mudga Yusha, DiwaSwapan* then less reoccurrence of *Vatarakta*.

Psychological factors like anger, depression etc have influence on the *Vatarakta* condition.

A number of health issues, including *Jwara* (fever), *Kamla* (Jaundice), Burning sensation (*daha*), *Shoth* (inflammation), *Aruchi* (lack of appetite), and *Bhrama* (dizziness), can arise from improperly treating *Vatarakta*. *Sanshodhana* (cleaning therapies), *Sanshamana* (pacifying therapies), and *Nidan parivarjana* (avoidance of causative factors) are the fundamental tenets of *Vatarakta* treatment.

REFERENCES:

1. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. *Chikitsa Sthana* 29/1. p.627-738.
2. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. *Chikitsa Sthana* 29/1. p.627-738.
3. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri

- Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Chikitsa Sthana 29/1. p.627-738.
4. Kasper DL, Hauser SL, Jameson JL, Fauci AS, Longo DL, Loscalzo J. *Harrison's Principles of Internal Medicine*. 19th ed. Vol. 2. New York: McGraw-Hill Education; 2015.
 5. Longo D, Fauci AS. *Harrison's Principles of Internal Medicine*. 18th ed. Section 12: Allergy, Clinical Immunology and Rheumatology. Chapter 175. New York: McGraw-Hill; 2010.
 6. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Sutrasthana 1/16. p.627-738.
 7. Radhakanta D. *Shabdakalpadruma*. Edited by Devaraja. Part II. Delhi: Naga Publishers; p.25-142.
 8. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Chikitsa Sthana 29/1. p.627-738.
 9. Madhavacharya. *Madhava Nidanam* with *Madhukosha Teeka*. Edited by Shri Sudarshana Shastry. 18th ed. Varanasi: Chaukhambha Sanskrit Sansthan; 1988. Ch. 23. p.499-505.
 10. Vagbhata. *Ashtanga Hridaya* with *Sarvangasundari* by Arunadatta and *Ayurveda Rasayana* by Hemadri. Edited by Hari Shastri Paradakara Vaidya. 9th ed. Varanasi: Chaukhambha Orientalia; 2002. Nidana Sthana 16/3. p.535-956.
 11. Bhavamishra. *Bhavaprakasha*. Translated by K.R. Shrikantha Murthy. 1st ed. Varanasi: Krishnadas Academy; 2000. Bha.Pra. 29/6-7. p.742.
 12. Ratnakara. *Yoga Ratnakara* with *Vaidhyaprabha Commentary* by Laxmipathi Shastry. Edited by Indradev Tripathi. 1st ed. Varanasi: Krishnadas Academy; 1998. Vataraktadhikara. p.623-635.
 13. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Chikitsa Sthana 29/20. p.630-738.
 14. Vagbhata. *Ashtanga Hridaya* with *Sarvangasundari* by Arunadatta and *Ayurveda Rasayana* by Hemadri. Edited by Hari Shastri Paradakara Vaidya. 9th ed. Varanasi: Chaukhambha Orientalia; 2002. Nidana Sthana 16/9. p.536-956.
 15. Madhavakara. *Madhava Nidanam* with *Madhukosha Commentary*. Edited by Shri Sudarshana Shastry. 18th ed. Varanasi: Chaukhambha Sanskrit Sansthan; 1988. Ch. 23. p.498-568.

16. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Chikitsa Sthana 29/21. p.628-738.
17. Vagbhata. *Ashtanga Hridaya* with *Sarvangasundari* by Arunadatta and *Ayurveda Rasayana* by Hemadri. Edited by Hari Shastri Paradakara Vaidya. 9th ed. Varanasi: Chaukhambha Orientalia; 2002. p.537-956.
18. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Chikitsa Sthana 29/29. p.629-738.
19. Vagbhata. *Ashtanga Hridaya* with *Sarvangasundari* and *Ayurveda Rasayana*. 9th ed. Varanasi: Chaukhambha Orientalia; 2002. A.H.16/16, M.Ni.23, Y.R.Vataraktadhikara. p.537-956.
20. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Chikitsa Sthana 29/44. p.630-738.
21. Ratnakara. *Yoga Ratnakara* with *Vaidhyaprabha Commentary* by Laxmipathi Shastry. Edited by Indradev Tripathi. 1st ed. Varanasi: Krishnadas Academy; 1998. Y.R. Vataraktadhikara; Ma.Ni.23/14-18; Bha.Pra.29/15-17. p.623-635.
22. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Chikitsa Sthana 29/43. p.630-738.
23. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Chikitsa Sthana 7/9. p.356-738.
24. Akhtar B, Mahto RR, Dave AR, Shukla VD. Clinical study on *Sandhigata Vata* with special reference to osteoarthritis and its management by *Panchatikta Ghrita Guggulu*. *Ayu*. 2010;31:53-7. doi:10.4103/0974-8520.68210.
25. More SD, Dwivedi RR. A clinical study of *Panchakola Siddha Yavagu* in *Agnimandya*. *Ayu*. 2011;32:70-5. doi:10.4103/0974-8520.85733.
26. Shamsi TN, Parveen R, Fatima S. Panchakola reduces oxidative stress in MCF-7 breast cancer and HEK293 cells. *J Diet Suppl*. 2017; DOI:10.1080/19390211.2017.1386255.
27. Charaka. *Charaka Samhita* with *Deepika Teeka* of Chakrapanidatta. Edited by Shri Lalachandra Shastri Vaidya. Reprint edition. Varanasi: Krishnadas Academy; 2000. Sutra Sthana 25/9. p.124-738.