

A Comprehensive Study of Vatarakta W.S.R. To Anatomical Changes in Gout

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ABSTRACT:

Vatarakta is the most common manifestation of Vatavyadhi, which is produced by avarana(occlusion) disease. The margavarana pathology resulted in the UttanaVataraktasituation. Vatarakta is a metabolic disease that affects many people. It is a sickness characterised by a Vata Dosha imbalance impacting the Rakta Dhatu, in which the Vayu is increased by long distance rides. Rakta, or blood, is vitiated by the ingestion of Lavana, Amla, Katu, Kshara, and other similar plants. The Vata, whose channels have been stopped by Rakta, becomes vitiated and contaminates the Rakta (blood). Vayu's vitiated blood eventually burns all the blood in the body and gravitates towards the foot. Vatarakta is a violent combination of vitiated Vata and Rakta. Based on etiopathology, Vatarakta can potentially be linked to Gout.

Starting with Paada (foot) and Hasta (hand), symptoms develop (hands). It's a Vatapradhana Tridosha Vyadhi (Vatadominating). Gout's symptomatology is very similar to those described in Vatarakta. Gout is a type of arthritis caused by an excess of uric acid in the bloodstream crystallising in the joint, causing extreme pain, swelling, and stiffness. It commonly affects the big toe joint. The impact of gout on patient morbidity and death has been proven in numerous research. Many gout patients are not appropriately managed, resulting in repeated gouty arthritis flare-ups.

KEYWORDS:

Vatarakta, Uttana, Gambhira, Gout, Tophi.

I. INTRODUCTION:

Vatarakta is a disorder that impairs or disables one's ability to function. The disease

caused by the conjugation of vitiated Vata and Raktacauses a variety of health problems, the most serious of which is Vatarakta. Vatarakta is a vital Vatavyadhi that is mentioned in practically every Samhita. In the Charaka Samhita, it is described as a distinct illness entity. Many allusions to this ailment, as well as descriptions of it, can be found in classical books under the names Vatarakta, Adhya Vata, Vatabalasa, and Khudda Vata.

The condition is known as Aadhya Vata because it primarily affects the wealthy, who have a lot of money and are delicate. Similarly, "Khudda" means "joint" and "little," therefore Khudda Vata refers to an illness that mostly affects the body's smaller joints.

Vata is considered the most important of the Tridoshas in Ayurvedic writings because of its six distinct characteristics, including रूक्षः शीतो लघुः

सूक्ष्मश्चलोऽथ विशदः खरः।(च.सू.1/59)

spreading, swift action, vigour, capacity to vitiate other doshas, autonomy, and the ability to cause the greatest variety of ailments. At same time, it is claimed that Raktais the sole source of life for all living species. Vatarakta is a disease that affects both Vata and Rakta due to different etiological reasons. Vatarakta can also arise when the Vata's normal gati is hampered by the morbid Kaphadosha and medas.

Severe pain, soreness, inflammation, and a burning feeling in the afflicted joints are all symptoms. Uthana and Gambhira are the two stages. Because of the striking similarities, the status of Uttana Vatarakta is frequently compared to atherosclerotic ischemic limbs disease in the related sciences. Atherosclerosis is a widespread condition that can affect any large or medium-sized

artery. Atherosclerosis means Restricts or totally blocks an artery. Gambhira Vatarakta directly impacts Asthidhatu and causes Ruja (Aakhorvisha) (rat poison). The intense pain, first site of presentation (hands and feet), and other clinical aspects can be compared to gout as it is known in current medicine. In modern medicine, gout is referred to as the "disease of kings" and the "king of diseases".

Inflammatory arthritis is commonly caused by gout. Gout affects 3.9 percent of the adult population in the United States. The major pathophysiological cause of the condition is monosodium urate (MSU) crystal deposition. Asymptomatic hyperuricemia, intermittent bouts (flares) of acute arthritis, intercritical gout, and, if hyperuricemia is not treated, advanced gout, which is clinically characterised by tophi, chronic gouty arthritis, and joint destruction in certain people.

The characteristic clinical presentation of gout is acute onset of highly painful monoarthritis, usually affecting the lower limb and most often the first metatarsophalangeal joint. The acute flare's discomfort usually peaks within 24 hours and fades over 7–14 days. Concerns arise in the case of acute inflammatory monoarthritis. Other diagnosis, such as septic arthritis, may need a histological investigation of the afflicted tissue. Furthermore, while the symptoms of gout are normally relatively distinct, patients may experience atypical symptoms such as subcutaneous nodules, chronic joint inflammation, or acute inflammation in unusual locations. While advanced imaging methods or microscopy of evacuated material for

crystal confirmation may aid in the diagnosis, pathological investigation of damaged tissue may be required to confirm the diagnosis. The goal of this comprehensive review was to describe the anatomical pathology of gout in detail, including macroscopic appearances, light microscopy (including immunohistochemistry), and electron microscopy.

HETU AND SAMPRAPTI:

अचङ्क्रमणशीलानां कुप्यते वातशोणितम् |

अभिघातादशुद्ध्या च प्रदुष्टे शोणिते नृणाम् ||

कषायकटुतिक्ताल्परूक्षाहारदभोजनात् |

हयोष्ट्रयानयानाम्बुकीडाप्लवनलङ्घने: ||

उष्णे चात्यध्ववैषम्याद्व्यवायाद्वेगानिग्रहात् |

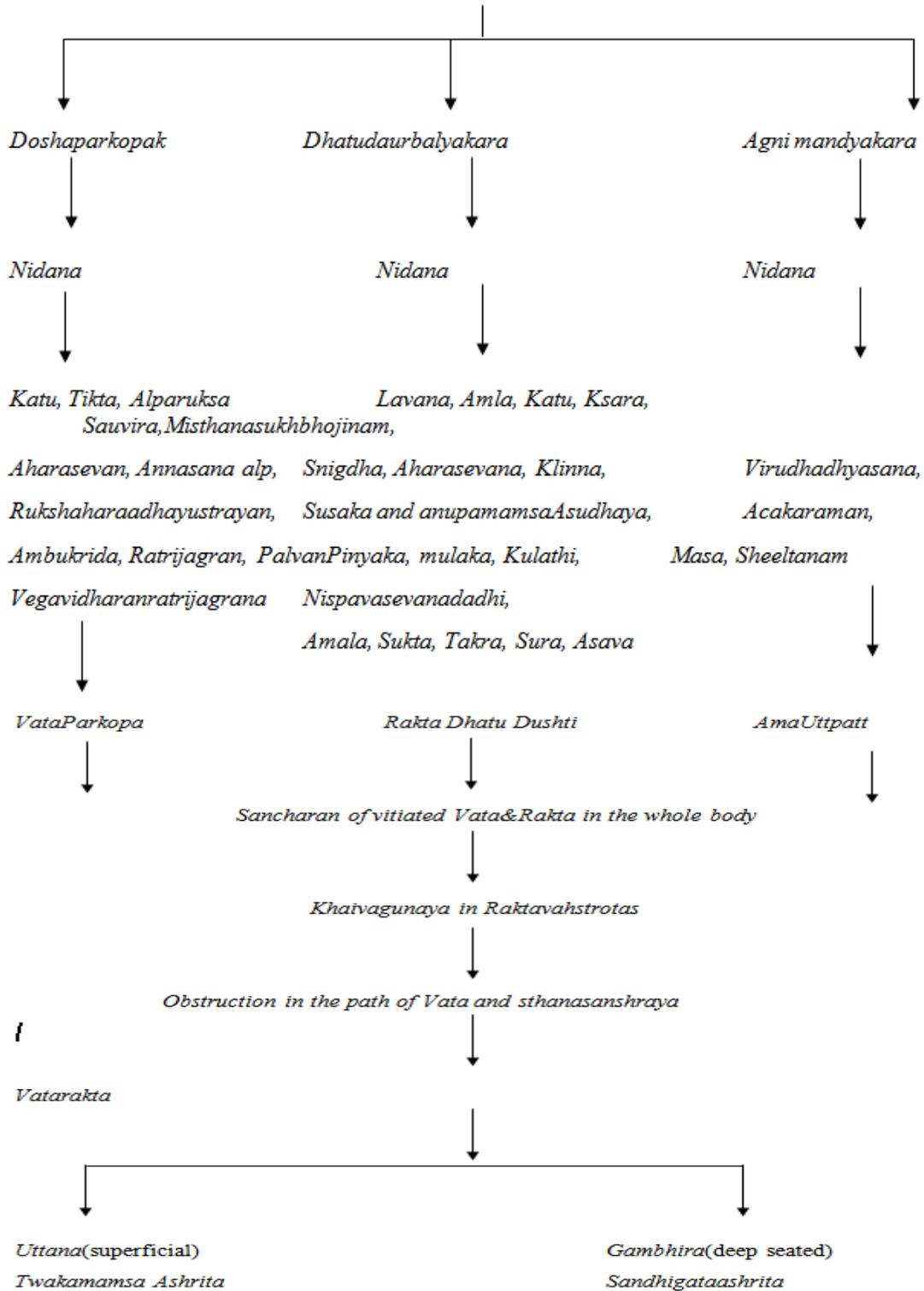
वायुर्विवृद्धो वृद्धेन रक्तेनावारितः पथि ||

कृत्स्नं सन्दूषयेद्रक्तं तज्ज्ञेयं वातशोणितम् |

खुडं वातबलासाख्यमाद्यवातं च नामभिः || च. चि . 29/8-11 ||

The Rakta is vitiated by above mentioned Hetu (causative) factor of VataShonita, further Vata gets aggravated because of Abhighata (due to injuries), Asladdhi (skipping seasonal Panchakarma), Intake of Kashaya (castringent), Katu (pungent), Tikta (bitter), Ruksha (dry) food items, AlpaBhojana (starvation), excessive Haya Ushtra Yana (traveling by horses, camels, and carts), PlavanaLanghana (resorting to water games, swimming and jumping), excessive walking in hot season which disturbs the Vata, AtiMaithunarexcessive sexual intercourse) and VahaNigraha (suppression of natural urges) are responsible for vitiation of Vata.

Samprapti of Vatarakta



उत्तानमथ गम्भीरं द्विविधं तत् प्रचक्षते।

त्वङ्मांसाश्रयमुत्तानं

गम्भीरं

त्वन्तराश्रयम्॥च.चि.29/19॥

Vatarakta(gout) is the two varieties, viz, Uttana(superficial), Gambhira (deep seated). The former is located in the skin as well as muscle tissue, and the latter is located in deeper tissues of the body.

Two types of Vatushonita

1.UttanaVatarakta-Superficial

2. GambhiraVatarakta-Deep

Bahya or UttanaVataraktaSthana-The UttanaVataraktaallocated in TwakaandMamsa (muscles) Abhyantara or GambhiraVataraktaSthima the GambhiraVatarakta is located in the Antara Ashraya (deep tissues-Meda, Asthi and Majja).

BHEDA AND RUPA OFVATARAKTA:

Vatarakta is characterised in Ayurvedic literature according to dosha variation and place of affection, and the rupa of Vatarakta is described according to the disease classification:

1. Based on the place of origin.
2. Based on the dosha's preponderance.

ACCORDING TO THE SITE OF ORIGIN:

Vatarakta has been categorised in Charaka Samhita into two types based on the dhatu affected:

1. UttanaVatarakta (Superficial)
2. GambhiraVatarakta (Deep seated)

Although Acharya Sushruta disagrees, he explains that these are not kinds but stages, such as Kushta. It effects superficial structures like tvaka and mamsa at first, but as it progresses, it becomes gambhira, or deep entrenched, and impacts deep structures.

RUPA OFVATARAKTA:

कण्डूदाहरुगायामतोदस्फुरणकुञ्चनैः।

अन्विता श्यावरक्ता त्वग्बाहये ताम्ना तथेष्यते॥

गम्भीरे श्वयथुः स्तब्धः कठिनोऽन्तर्भृशार्तिमान्।

श्यावस्तामोऽथवा दाहतोदस्फुरणपाकवान्।

रुग्निदाहान्वितोऽभीक्ष्णं वायुः सन्ध्यस्थिमज्जसु।

छिन्दन्निव चरत्यन्तर्वक्रिकुर्वश्च वेगवान्॥

करोति खञ्जं पङ्गुं वा शरीरे सर्वतश्चरन्।

सर्वैर्लिङ्गैश्च विज्ञेयं वातासृग्भयाश्रयम्॥च.चि.29/20-23॥

Symptoms of GambhiraVatarakaand Correlation with Gout are as follows

GAMBHIRA VATRAKTAGOUT

- ShvayathuEdema in the involved parts of the body
- StabdhaStiffness of joints
- KathinaHardness of the part
- AntaBhrushaArtiSevere pain inside
- ShyavaTamraThe color of the affected part involved indisease becomes either blackish or coppery.
- DahaBurning sensation
- Toda Pricking pain
- SpuranaThrobbing pulsation
- PakavanaFinally the part become inflamed and ulcerated.

When Vayu reaches Sandhi (Joints), Asthi (bones) andMajja(bone marrow), thus it causes Ruk (severe pain) and Daha (burning sensation).

The forceful movement of Vayu reached the joints causes cutting type of pain whereby making them crooked, produces limping or lameness while maring When the symptoms of both types Uttana and Gambhira are present in indirect is considered an Ubhayahitasuperficial and deep both) and difficult to cure.

UPDRAVA:

अस्वप्नारोचकश्वासमांसकोथशिरोग्रहाः।

मूर्च्छायमदरुक्तृष्णाज्वरमोहप्रवेपकाः॥

हिककापाङ्गुल्यवीसर्पपाकतोदभ्रमक्लमाः।

अङ्गुलीवक्रता स्फोटा दाहमर्मग्रहार्बुदाः॥

एतैरुपद्रवैर्वैर्ज्यं मोहेनैकेन वाऽपि यत्।

सम्प्रसावि विवर्णं च स्तब्धमर्बुदकृच्च यत्॥

वर्जयेच्चैव सङ्कोचकरमिन्द्रियतापनम्।

अकृत्स्नोपद्रवं

याप्यं

साध्यं

स्यान्निरुपद्रवम्॥च.चि.29/31-34॥

Patients of Vatarakta having complications like sleeplessness, anorexia, asthma, sloughing of muscles, stiffness of the head, fainting, intoxication, pain, morbid thirst, fever, unconsciousness, trembling, hiccup, lameness.

erysipelas, suppuration, pricking pain. giddiness, mental fatigue, curvature of fingers and toes, pustular eruptions. burning sensation, affliction of vital parts, and tumour should not be treated. Even association of Moha (unconsciousness) alone as a complication, renders the patient of Vāta-Rakta incurable.

If Vatarakta is associated with fluid-exudation [from the wounds in the afflicted joint], vivarna (manifestation of opposite colour) of the skin, stiffness; tumour, contraction and affliction of the senses, then such patients should not be treated.

If the ailment is associated with only some of the aforesaid complications, then the patient is palliable; and if there is none of these complications, then the patient is curable.

ANATOMICAL COMPLICATIONS DUE TO GOUT:

आजानुस्फुटितं यच्च प्रभिन्नं प्रसृतं च यत् |

उपद्रवैश्च यज्जुष्टं प्राणमांसक्षयादिभिः ||सु. नि.1/49||

Patients with gout develop palpable tophi, which can also appear in people who have never experienced severe gouty arthritis. They are frequently single or several firm yellow or white papules or nodules. They can appear in a variety of places, including the fingers, hands, and feet, as well as the olecranon or Achilles' tendon. Tophi can form in the kidneys and other organs, as well as under the skin of the ears. Tophi can form in patients with osteoarthritic Heberden nodes. This is most common in older women who take diuretics, and it can cause the joints to become significantly inflamed and misinterpreted as inflammatory osteoarthritis. Tophi, particularly in the olecranon bursae, can become highly inflamed and painful, even after a little or unnoticed damage. Tophi could erupt at any time. Tophi can erupt through the skin, releasing chalky urate crystal masses. These sinus passages have the potential to get contaminated. Tophi in and around joints can lead to abnormalities and secondary osteoarthritis in the long run.



If left untreated, tophi can get bigger and more numerous, leading to complications. Potential complications include

- A decrease in a joint's ability to bend and straighten
- Ulcerations (sores) and necrosis (tissue death) in the skin, which we can correlate with "मांसकोथ" where the tophi cause the skin to stretch or break

- Infection, particularly for people who have large, long-lasting ulcers
- Compression of nearby nerves, which is uncommon but can happen when gout occurs in the spine and—more rarely—in the wrist and elbow.



Photograph showing MSU crystal deposition, tophus and joint damage at the macroscopic level (sagittal plane) in the left first metatarsophalangeal joint from a cadaveric donor with tophaceous gout. Bone erosion and cartilage damage adjacent to MSU crystal deposition and tophus can be seen. Fibrous septae are also evident between deposits of MSU crystals within the tophus.

II. DISCUSSION:

Excessive alcohol use, a high purine diet, a non-vegetarian diet, acidic and astringent foodstuffs, a sedentary lifestyle, excessive anger, and emotional anguish are the main causal factors for Vatarakta. Vata and Rakta are both important in the pathophysiology of Vatarakta. The passage of Vridhavyayu, through which the Vayuh flows, is obstructed by vitiated Raktadhatu. Vatainturn that is impeded vitiates the entire Rakta, and this Doshadushyasammurchhanain joints emerges as Vatarakta. Pathya and Apathya are crucial in the treatment of gout, as well as other metabolic disorders. As a result, sickness can be better treated in addition to therapy by avoiding all of these triggering variables.

hyperuricemia (serum urate > 6.8 mg/dL [> 0.4 mmol/L]) causes gout, which is characterized by the formation of monosodium urate crystals in and around joints, resulting in recurring acute or chronic arthritis. Gout's initial attack (flare) is usually monoarticular, affecting the first metatarsophalangeal joint. Acute, intense pain, soreness, warmth, redness, and swelling are all symptoms of gout. Identification of crystals in synovial fluid is required for a definitive diagnosis. Anti-inflammatory medications are used to treat

acute flares. Regular use of nonsteroidal anti-inflammatory medicines (NSAIDs), colchicine, or both, as well as chronically decreasing serum urate levels with allopurinol, febuxostat, or uricosuric pharmaceuticals such as probenecid, might reduce the frequency of flares.

III. CONCLUSION:

The incidence of lifestyle disorders is constantly increasing. The best thing that can be done in the current situation is to avoid rather than cure it. Vatarakta is also a contemporary lifestyle disorder. The condition is caused by an overabundance of purine in the diet and a sedentary lifestyle. Disease can be treated by making specific lifestyle modifications, such as drinking a lot of water, losing weight, and eating a low-purine diet. In some circumstances, herbal medications may be required to eliminate excess uric acid from the body and relieve disease symptoms.

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