

Concept of Gouty Arthritis (Vatarakta) in Ayurveda

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REVIEW ARTICLE

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ABSTRACT

The understanding of ideal definition of health and *dhatu-samyā* is very essential for human beings in order to attain the first pursuit of life for attaining *hita-ayu* and *sukha-ayu*. In *Ayurveda* health means the state of *Doshasamyā*, *Agnisamyā* and *Dhatu-samyā* as well as wellness of *Atma*, *Indriya* and *Mana*. *Acharya Charaka* says that a man desirous of happiness should observe the rules which are related with the prevention of unborn diseases and the cure of those which have already arisen. The ultimate aim of life is to achieve the *Dharma*, *Artha*, *Kama* & *Moksha*. For obtaining the above-mentioned goals, it is very essential to be fit physically, mentally and spiritually. So, directions of the *Ayurveda* in this regard should be followed strictly. When the person does not follow the directions of *Ayurveda* in regard to *Ahara*, *Nidra*, *Brahmacharya* collectively known as “*Tri-upstambha*” the person becomes ill. Improper use of the above three supports of life is the cause of so many diseases takes place, out of them, one is the *Vatarakta* (Gout), which consists of swelling including burning pain in metatarsophalangeal joints initially followed by the other joints, resulting in inability to the walk.

Keywords: Ayurveda, Vatarakta, Raktamokshana, Gout, Arthritis

1. Introduction

In the very ancient classics the *Vatarakta* disease as an individual entity is not formed well established but in scattered form the nearly same signs, symptoms and the treatment of the *Vatarakta* disease are found. It means in those time, the lifestyle was very near to nature and with full of physical exercise, so the causative factors of *Vatarakta* were not made up. The word *Vatarakta* is made up of two words *Vata* & *Rakta*. The *Vata* is the chief *Dosha* without which no any disease may take place, the *Rakta* is also a very important *dhatu* which gives nutrition to each & every body tissues & maintains them normal by eliminating toxins – *malas* (waste products) through the natural orifices of the body. *Vatarakta* (Gout) is a variety of *Vataroga* (Group of diseases caused by *Vayu*). The disease which is caused by excessively aggravated *Vayu* (*Vata*) & vitiated blood (*Rakta*) is called *Vatarakta*. *Vatarakta* is also known as- *Khuda roga*, *Vata-balasa*, *Vatashra* & *Adyavata*.

Vatarakta is correlated with Gout in modern medical science. Gout is the true crystal

deposition disease characterized by pain & swelling of Ist Metatarsophalangeal joint initially followed by other joints with an abnormal elevation of Urate level in the body either due to over production or under excretion or sometimes both. It can also be defined as the pathological reaction of the joint or periarticular tissues to the presence of non-sodium urate monohydrate crystals, clinically this may present as inflammatory arthritis, bursitis, tenosynovitis, cellulitis or as a nodular tophaceous crystal deposits. Although prolonged hyperuricemia is necessary but is alone not sufficient for development of Gout.

Etiology

The causative factors said by various *Acharya's* may be divided into three categories as -

(A) The Factors Aggravate the *Vatarakta*

- Tender physique.
- Excessive intake of sweet food.
- Sedentary habits & Leisurely eating.
- Unwholesome diets & activities.

- e) Deteriorated diseases.
- f) Long walking.
- g) Excessive sexual activities.
- h) Excessive physical exercise.
- i) Abstain of sex & Perversely sex.
- j) Obesity.
- k) Most oftenly fallen to sad and oftenly be angry.
- l) To take sleep during day and remaining awake at night.
- m) Intake of food before the previous meal is digested.
- n) Excessively intake of saline, sour, pungent, alkaline taste.
- o) Excessive intake of unctuous & hot potency food.
- p) Intake of purified or dry meat of aquatic or marshyland dweller animals.
- q) Excessive intake of sesamun indicum cake preparation.
- r) Excessive intake of radish, kullattha, masa, nispava, leafy vegetables, meat & sugarcane.
- s) Diet unwholesome to seasons and accustomed ones.
- t) Intake of mutually contradictory-incompatible foods.
- u) Improper administration of oleation & other purifactory therapies.
- v) More intake of curd, aranala (kanji), sauvira (sour preparation of dehusked barley), shukta (Vinegar), buttermilk & Alcohol, wine.

(B) The Factors Vitiates the Rakta

- a) Trauma
- b) Omission of the purification of the body. i.e. omission of the use of elimination therapies which are supposed to be done in routine during different seasons.
- c) Intake of foods which cause burning sensation during digestion which are incompatible.

(C) The Factors Aggravates the Vata

- a) Excessive intake of astringent, pungent, bitter & unctuous ingredients
- b) Intake of less food or abstinence from food.
- c) Great indulgence in vegetable which possess qualities like penetrating.
- d) Riding over elephant, horses, camel or on vehicles drawn by them for long periods.
- e) Resorting to aquatic games, swimming & jumping.
- f) Exhaustion by heat due to excessive wayfaring in Hot seasons.
- g) Indulgence in sexual intercourse
- h) Suppression of the manifested natural urges.
- i) Exposure to cold breeze.

According to Modern Concept Predisposing Factors of Gout are:

- a) Trauma to the joint
- b) Surgery
- c) Exposure to cold
- d) Injection of Foreign Protein
- e) Drugs
- f) Excessive use of Alcohol
- g) High Protein Diet
- h) Diuretics
- i) Chemicals like Urograffin, Allopurinol, Uricosuric drugs etc.
- j) Sometimes it is associated with changes in the atomospheric pressure.
- k) Acute Infection.

Hyperuricemia is a prerequisite for deposition of urate in synovium & other tissues. Uric acid is the end product of purine metabolism. There are two pathways involved in the purine synthesis:

- a) *A-De-Novo pathway*- in which purines are synthesized from non-purine precursors.
- b) *A Salvage pathway*- in which free bases derived from the breakdown of nucleic acids of endogenous or exogeneous origins are

recaptured. The enzyme Hypoxanthine guanine phosphoribosyl transferase (HGPRT) is involved in the salvage pathway.

A deficiency of this enzyme leads to increased synthesis of purine nucleotides through the De-Novo-pathway and hence increased production of uric acid. The high levels of uric acid in the blood are caused by protein rich foods. Alcohol intake often causes acute attacks of gout & hereditary factors may contribute to the elevation of uric acid.

A complete lack of HGPRT occurs in the uncommon X-linked *Lesch-Nyhan* Syndrome, seen only in males and characterized by hyperuricemia and in some cases of gouty arthritis. Less severe deficiencies of the enzyme may also induce hyperuricemia & gouty arthritis with only mild neurologic deficits. The great majority of cases of gout are primary in which the metabolic defect underlying the increased levels of uric acid is unknown.

Although hyperuricemia does not necessarily lead to gouty arthritis, there are many factors which contribute to the conversion of asymptomatic hyperuricemia into primary gout. Gout occurs due to mono-sodium urate crystals form on the articular cartilage of joints, on tendons & in the surrounding tissues.

The purine metabolism gives rise to uric acid, which is normally excreted in the urine. The uric acid is likely to form into crystals when there is a hyperuricemia. It is 10 times more common without clinical gout than with it. The kidneys are responsible for approximately for 2/3rd of uric acid excretion & the gut responsible for the rest. The defects in the kidney that may be genetically determined are responsible for the predisposition of individuals for developing gout.

In short, we can say the causes of Hyperuricemia are under excretion of uric acid, over production of uric acid and the androgen, estrogen ratio affect the uric acid level and may be responsible for the relative rarity of urate gout in premenopausal women & in prepubertal boys.

Gout is more common in affluent societies due to a diet rich in proteins, fat and alcohol, consequence of which such a renal failure.

Gout may also develop as co-morbidity of other diseases, including polycythemia, leukemia, and intake of cytotoxins, obesity, diabetes, hypertension, renal disorders & hemolytic anaemia. This form of gout is often called secondary gout. The miscible body pool of urate in normal individuals is about 1gm & about 60% of this is replenished daily from catabolism of newly synthesized & dietary proteins.

Sign & symptoms

The signs & symptoms of *Uttana* (superficial) *Vatarakta* are stated very similar by the *Acharya Charaka* and *Acharya Vagbhatta* but the *Astanga Samgarahkara* & *Hridayakara* stated one more sign that is burning penetrating sensation produced like mustard oil.

These are - itching, burning sensation, ache, extension, pricking pain, throbbing sensation & contraction. The skin becomes brownish black, red or coppery in colour. Burning penetrating sensation produced like Mustard oil.

The signs & symptoms of *Gambhira* (Deep seated) *Vatarakta* are stated as following – hard inflammation with stiffness, severe pain beneath oedema, blackish or coppery coloration of skin, burning sensation, piercing pain, quivering & suppuration inside the oedema.

The aggravated *Vayu* while causing pain & burning sensation at the site of inflammation constantly moves with high speed through the joints, bones & bone marrows produces cutting pain, make the joints curved inwards & when this aggravated *Vayu* moves to all over the body, results the person lame & paraplegic.

According to modern concept the clinical features of gout appears mostly at the age above 40, mainly 95% in males & rarely in females. It is extremely rapid onset reaching maximum severity in just 2-6 hrs. Often walking the patient in the early morning with severe pain, which is often described as the "worst pain" ever. There is extreme tenderness on accounts of which the patient is unable to wear socks.

The joint most commonly affected initially is the 1st metatarsophalangeal joint 50% other side ankle, heel, knees & hands. The hip and shoulder joints are usually not affected. There is marked swelling with overline red shiny skin on the affected joints.

During attack the joint shows the signs of marked synovitis, sometimes the attack may be accompanied by fever, especially if a large joint such as the knee is involved. When the attack subsides pruritus common.

The general features are anorexia, malaise, headache, tachycardia & fever which may come with slight chill & the involved skin is tense. The local veins are very much prominent. An attack may last for two weeks after which the joint becomes completely normal till another attack occur.

Treatment

Acharya Charaka & others have stated the treatment of *Vatarakta* in very detail as

a) Initially oleation therapy should be applied to the patient of *Vatarakta* & after that if the patient is slightly unctuous should be given purgation therapy with unctuous ingredients or when the patient is excessively unctuous should give purgation therapy with ununctuous ingredients but these should be mild in nature because of the sharp purgatives may excessively provoke the *Vata*, which will not be useful for treatment of *Vatarakta* but the repeatedly *Vasti* therapy both *Niruha* & *Anuvasana* will be more useful regarding the treatment of *Vatarakta*.

b) The Affusion, Massage, *Pradeha* should may also be given.

c) Food & unctuous substances which do not cause burning sensation should also be given.

d) The *Vasti* is the best treatment of the *Vatarakta* & there is no any therapy useful in comparison to *Vasti* regarding the treatment of *Vatarakta*.

e) Fomentation therapy should not be administered to those who are suffering from *Vatarakta*.

The principles for treatment of *Vatarakta*

Depending upon the severity of involved *Doshas* & the strength of the patient, *Raktamokshana* (bloodletting) in small quantity should be done many times for the clearance of the path of the *Vata* & *Rakta* of the affected part of the body.

1) *Raktamokshana* may be done by Horn, Leech, Needle, Gourd, Scratching of the skin & Venesection

2) *Raktamokshana* should be done by application of leech when there is pain, burning sensation, colic pain & pricking pain, redness present to the afflicted joints.

3) *Raktamokshana* should be done by the application of Horn & Gourd when there is numbness, Itching, tingling sensation, pain & burning sensation at the afflicted joint

4) *Raktamokshana* should be done by the scratching of the skin (*Prachchana*) or venesection (*Siravyadha*), when the pain moves from one part of the body to the other.

5) When the predominance of the aggravated *Vayu* produce emaciation of the limbs & ununctuousness of the body *Raktamokshana* should not be done.

6) When due to depletion of blood the aggravated *Vayu* produce the deep seated oedema, stiffness, trembling, diseases of the ligaments & vessels, asthenia & contractures, *Raktamokshana* should be avoided.

7) Excessive *Raktamokshana* produce lameness, diseases of the *Vayu* & it may even cause death also, so it should be done in an appropriate measure.

8) The *Raktamokshana* should be done in unctuous patients only.

Some Important Ayurvedic Formulations for Treatment of *Vatarakta*

- *Guda haritaki* should be consumed regularly.
- *Pippali* may be used in increasing & decreasing order. (*Vardhmana pippali yoga*)
- Intake of Juice of *Guduchi* or powder or paste or decoction for a prolonged period.

- *Patoladi* Decoction,
- Decoction of *Guduchi* with *Eranda* Tail.
- *Nimbadi Churna*.
- *Vataraktantaka Rasa*,
- *Vishweshwara Rasa*,
- *Sarweshwara Rasa*,
- *Chandraprabhavati*
- *Shoolagajakeshari rasa*
- *Guduchayadi Louham*.
- *Amrita guggulu*,
- *Kaishore guggulu*, *Punarnava guggulu*
- *Triphala guggulu*,
- *Simhanada guggulu*.
- *Guduchi Ghrita*,
- *Shatavari Ghrita*,
- *Amritadya Ghrita*,
- *Bala Ghrita*, *Guduchi tail*,
- *Mahapinda tailam*,
- *Sukumara Taila as drink*,
- *Bala Taila as drink*, *Pinda taila*,
- *Madhuka tailam*,
- *Satapaka madhuka tail*.

Management of Gout

a) Line of Treatment

First subside the pain by giving analgesics. Secondly such a drug should be given who prevents the formation of the urate crystals & reduce the raised urate crystals.

b) Acute Attacks

1. A quick acting oral NSAIDs (But Aspirin should be avoided)

- a. Naproxen 500mg /day
- b. Ibuprofen 400mg 8 hourly
- c. Indomethacin 50mg 8 hourly
- d. Diclofenac sodium 50mg hourly.

2. Selective Cox-2 inhibitor –

Valdecoxib 20mg twice daily

3. Colchicine - 1mg Stat, followed by 0.5mg 6 hourly (3months)

4. Corticosteroids - Intra-articular steroid injection - ACTH 20 units IM BD

5. Prednisolone 40-60 mg /day

6. In severe cases sedatives like pethidine, codeine may be required.

(c) Long Term Management

A. Drug preventing formation of Uric Acid 1. Allopurinol 300mg daily (For 3 months).

B. Uricosuric drugs causing excretion

1. Probenecid 250mg 3-4times a day.

2. Sulphinpyrazone 300-400mg /day or 100mg t.d.s.

3. Benzbromarone (100mg/daily)

4. SMOADs-Structure modifying osteoarthritic drugs.

Pathya for Vatarakta

For the patients suffering from *Vatarakta* the following are useful –

1. The cereals like the old Barley, Wheat & *Shali* as well as *Shashtika shali*.

2. Meat soup of the *Vishikara* as partridge, quail, lark etc. & *Pratuda* birds as peacock, hen, parrot, pigeon, sparrow etc.

3. Leafy vegetables like *Sunishnaka*, tender branch of *Vetra*, *Kakamachi*, *Vastuka*, *Upodika*, *Souvarchala* sizzled with *ghrita* & meat soup.

4. Vegetables like as soup *Karvellaka*, *Choulai*, *Surana*, *Shunthi*, *Methika*, *Patola*, *Kushmanda*, *Punarnava*, *Palak*, *Chakavada*, *Bottle gourd*, *Tripusha*, *Aragavadha*, *Guduchi* etc.

5. *Draksha*, Butter, Large raisin, Castor oil, White variety of sugar.

6. Soup of *Adhaki*, *Chanaka*, *Masura*, *Mudga* added with *ghrita* in liberal quantity.

7. Milk of cow, buffalo, goat & sheep etc.

9. Limit meat, poultry and fish.

Apathya for Vatarakta

1) Sleep during day time

- 2) Exposure to heat
- 3) Excessive Exercise
- 4) Excessive sexual intercourse
- 5) Excessive intake of pungent, saline, sour & alkaline taste & hot heavy *abhishyandi gunas* & *ushna veerya* food ingredients as *mash*, *kullatha*, peas, curd, sugarcane, radish, alcohol, sesamum oil, *kanji*, *saktu*, jackfruit, brinjal, *kundaroo* etc.
- 6) Meat of aquatic & *anoopa* habitat animals.
- 7) Incompatible diets should be avoided by the patients suffering from *Vatarakta*.

Conclusion

Vatarakta is disease in which *Vata* as chief *Dosha* get vitiated along with *Rakta dhatu*, the disease also known as known as *Vata-balasa* and *Vatashra*. Ayurveda suggested many therapies for managing such condition including uses of massage therapy, *Basti* and *Raktamokshana*. Moreover ayurveda drugs such as *Gudaharitaki*, *Pippali*, *Vataraktantaka Rasa*, *Vishweshwara Rasa*, *Sarweshwara Rasa* and *Chandraprabhavati*, etc. are considered useful remedies for *Vatarakta*.

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Conflict of Interest

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