

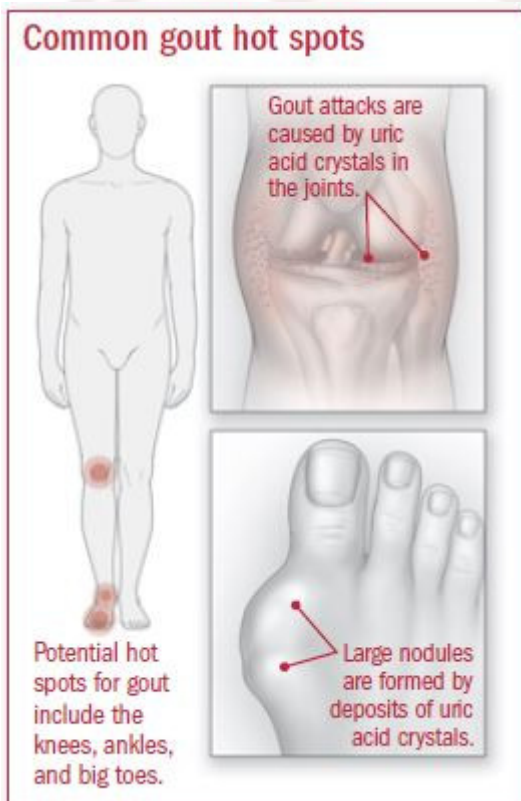
GOUTY ARTHRITIS

Gout is an inflammatory arthritis that belongs to a group of arthropathies called the crystalline arthropathies. It occurs when there is a rise in uric acid levels in blood leading to formation and deposition of monosodium urate crystals in and around the joints. The occurrence of gout is increasing worldwide with an incidence of 0.58 – 2.89 per 1000 persons in a year. It is the most prevalent arthritis in men and is associated with impaired quality of life.

WHAT IS GOUTY ARTHRITIS

Gout is defined as a disease in which defective metabolism of uric acid causes arthritis, especially in the smaller bones of the feet, deposition of chalk stones and episodes of acute pain.

When the human body breaks down the chemicals called purines, it produces uric acid. Purines are found naturally in our body as well as in the food we consume. Normally, uric acid gets dissolved and gets discharged out of our body through urine. But if the body is producing too much uric acid or if the body is not excreting enough uric acid, it starts accumulating in the body. This results in the formation of sharp needle like crystals which accumulates in and around the joints resulting in inflammation, swelling and pain and this condition is referred to as gout.



CAUSES

Excess uric acid levels in blood results in gout. It is either due to excess production of uric acid in body or if the body is not excreting enough uric acid out of the body.

- **Production of excess uric acid:** Dehydration, blood and metabolic disorders such as high blood pressure, diabetes may result in production of excess uric acid in the blood.
- **Reduced Excretion of uric acid from the body:** A thyroid or kidney problem often results in this condition.
- **Hereditary:** Gout is often inherited in the families.
- **Medications:** Intake of diuretics, aspirin, blood pressure lowering medications, cyclosporine, etc for a longer period often results in high levels of uric acid.
- Sedentary life style.
- **Lack of exercise** or physical inactivity.
- **Diet:** Excess intake of certain food which have high purines such as red meat, organ meat, sea foods especially cod, mussels, salmon, etc, fruit juices.

RISK FACTORS

- **SEX:** men have more risk of getting gout than of women. 1 out of every 3 gout patients is men.
- **AGE:** men above 40 and women after menopause are more prone to gout.
- **HEALTH ISSUES:** people with congestive heart failure, high blood pressure, insulin resistance, metabolic syndrome, diabetes, poor kidney function, etc are at risk of developing gout.
- **OBESITY:** Obese people have more chances of being affected with gout than others.
- **ALCOHOL:** Regular intake of alcohol increases the chances of gout.
- **DIET:** People who take food which is rich in fructose, purines are at a high risk of developing gout.
- **SURGERY:** A gastric bypass surgery increases the chances of gout.
- **RECENT TRAUMA:** Increases the risk.
- **LEAD EXPOSURE:** Chronic lead exposure has been linked to some cases of gout.
- **MEDICATIONS:** Diuretics and medicines containing salicylate intake increases the chances of gout.

SIGNS AND SYMPTOMS

Gout, usually has a sudden onset which lasts for days or weeks and this period of gout is

called flares. Flares are followed by long periods of absence of symptoms called remissions which can last for weeks, months or years.

The common signs and symptoms of gout in the affected joints are:

- **Pain:** Acute in onset and is very intense and excruciating in nature. Usually starts at the middle of the night. The pain is more severe within the first 4 to 12 hours of onset.
- **Lingering Discomfort:** After the severe pain subsides, there is some joint discomfort which may last for a few days to a few weeks.
- **Heat:** The affected joints are warm on touch and also the patient experiences severe burning sensation over the joints.
- **Swelling:** Pain is followed by swelling in the joints and often results in inflammation of the tissues around the joints.
- **Redness:** The swollen joints develops with redness in the area.
- **Unilateral Occurrence:** Gout usually attacks one joint at a time. It is often found in the big toe. Other commonly affected joints are the lesser toe joints, forefoot, the ankle, knees and smaller joints of the fingers, wrists and elbows.
- **Recurrence:** Often the signs and symptoms reduces or resolves itself within a few days or weeks followed by periods of no symptoms only to get another attack within weeks or months.
- **Limited Range of Motion:** Normal movements with the joint become difficult as gout progresses.
- **Tophi Formation:** If the gout is left untreated, the inflamed tissues along with the urate crystals form into lumps in the joints which are usually painful. These lumps are called as tophi and this often results in permanent damage of the joints.

TYPES OF GOUT

Progression of gout is often seen in different stages and is commonly referred to as different types of gout.

- **ASYMPTOMATIC HYPERURECEMIA:** The person has elevated uric acid levels in blood without any outward symptoms. No treatment is required at this stage though urate crystals may deposit in tissue and cause slight damage.
- **ACUTE GOUT:** It usually occurs with sudden onset of intense pain in the joints especially at the middle of night. It is followed by inflammation of the joint. These attacks are called as flares and normally subside within 3 to 10 days. Flares often get triggered by stressful events, alcohol and drugs as well as by cold weather.

- **INTERCRITICAL GOUT:** This is the period in between the acute attacks of gout. If the acute attacks are left untreated, over time they last longer and occur more frequently than before.
- **CHRONIC TOPHACEOUS GOUT:** This is the most debilitating type of gout. The gout left untreated develops to this type of gout. Here the patient suffers from chronic arthritis and also develops tophi in cooler areas of the body such as the joints of the fingers. Often at this stage, there is permanent damage to the joints and also to the kidneys.
- **PSEUDO GOUT:** Often gout is confused with other type of crystalline inflammatory arthritis called as pseudo gout. Even though the symptoms are very similar to gout, these symptoms are caused by deposition of calcium phosphate crystals in the joints rather than urate crystals. Pseudo gout requires another line of treatment.

DIAGNOSIS

Gout is tricky in diagnosing as its symbols to other similar conditions. However gout is diagnosed based on these factors:

- **HISTORY TAKING:** A detailed history about the pain, its onset and frequency of onset and other related conditions are noted.
- **PHYSICAL EXAMINATION:** The affected joint is thoroughly examined for signs of inflammation, redness, etc. Doctors also examine for the presence of tophi formation. Range of movements with the joint is also examined.
- **BLOOD EXAMINATION:** Blood tests to measure the levels of uric acid and creatinine in blood are done. But this not always a confirmatory test for gout.
- **JOINT FLUID TEST:** Fluid is drawn from the affected joint for the presence of urate crystals.
- **X-RAY:** Helps in ruling out other causes of joint inflammation.
- **ULTRASOUND:** Musculoskeletal ultrasound can detect urate crystals in a joint or in a tophus.
- **DUAL ENERGY CT SCAN:** This type of imaging can detect the presence of urate crystals in a joint even when it is not actually inflamed. This test is very expensive and is not widely available.

COMPLICATIONS

Common gout complications and co morbidities include:

- **Tophi Formation:** There are the clumps of urate crystals and inflammatory cells formed under the skin when you have long standing gout. The may be painful or

painless. As tophus grows , it can erode the joint and surrounding cells and tissues and can lead to damage and eventual joint destruction. Also they can get bigger and burst open through the skin causing infections.

- **Kidney Stones:** One of the common complications of gout is formation of kidney stones due to deposition of urate crystals in the urinary tract. They are associated with severe pain which usually radiates to lower abdomen and groin, pain on urinating, pink, red or brown urine.
- **Kidney Disease:** Uric acid is processed through the kidneys. Over time, the kidneys can't process enough uric acid leading to deposition of urate crystals which in the long run can damage the kidneys leading to kidney disease which is associated with ankle swelling, nausea, fatigue, loss of appetite, etc.
- **Heart Disease:** The risk of having a heart attack or a stroke or dying of cardiovascular disease is 15 percent higher in gout patients than others.
- **Diabetes:** Gout is associated with the risk of type 2 diabetes.
- **Sleep Issues:** Since most of the gout attacks happen at night, people with gout has problems with sleep which can cause tiredness, increased stress and mood swings. Also gout is seen associated with obstructive sleep apnoea.
- **Mental health:** The chronic pain associated with repeated gout attacks can lead to stress, anxiety and depression.
- **Bone Loss:** People with gout are more prone to develop osteopenia (thinning of bones) and osteoporosis leading to fractures.
- **Nerve or Spinal Cord Impingement:** Inflammation and tophi formation can cause nerve or spinal cord compression.
- **Erectile Dysfunction**

MANAGEMENT

Gout can be treated and managed with medical treatment and self management strategies.

Medicines

1. **Non Steroidal Anti-Inflammatory drugs:** Reduces the joint inflammation.
2. **Colchicines:** Used as a pain reliever.
3. **Corticosteroids:** to control gout inflammation and pain.

These are the medications used to treat the acute onset of gout and also to prevent the future attacks. If the gout is long standing or associated with complications, the following medications are also prescribed:

4. **Xanthine Oxidase Inhibitors:** These medications block uric acid production thus limiting the amount of uric acid produced in the body.

5. **Uricosurics:** These medications improve the uric acid removal by improving the kidney's ability to remove the uric acid.
6. **Surgery:** Gout can be typically treated without surgery but on a long run, this condition can damage the joints, forms tophi, tear the tendons and can cause skin infections over the joints. In such cases surgeries are advised. The common surgical procedures in treatment of gout are:
 - Tophi Removal Surgery
 - Joint Fusion Surgery
 - Joint Replacement Surgery

Self management Strategies

- **Eat a Healthy Diet:** Avoiding foods high in purines such as red meat, organic meat and sea foods and limiting the alcohol intake.
- **Stay Hydrated:** Drinking plenty of water throughout the day prevents the accumulation of uric acid crystals.
- **Lose Weight:** Reaching or maintaining a healthy diet can relieve pain, improve function and slow the progression of arthritis by reducing the pressure on the joints.
- **Get Physically Active:** Regular exercises and moderate to low impact activities such as walking, swimming and biking are recommended.
- **Protect your Joints:** Joint injuries can cause or worsen the arthritis. Always choose activities which are easy on the joints such as walking, swimming and cycling which have a low risk of injury and do not twist or put too much stress on the joints are recommended.

GOUTY ARTHRITIS IN AYURVEDA

Rakta vata is the classical description for gout in Ayurveda. It is described as a joint disease which is caused by the vitiation of both *vata dosha* and *rakta* (blood) and hence has the features of both the vitiated *rakta* and *vata*.

VATARAKTA

Vatarakta is a variety of *vata roga* which is caused by vitiation both *vata* and *rakta*. The vitiation of *vata* and *rakta* independently or together leading to morbid transformation in the body leading to severe pain and associated symptoms especially in the joints is termed as *vatarakta*. It is also called as *Khuda*, *Vatabalasa* or *Aadhyavata*.

Nidana (Causes)

Usually people of tender health who indulges in excessive intake of sweet, leisurely eating and adapting to sedentary life style are more predisposed to get affected by *vatarakta*.

Usually, the vitiation of *rakta* and *vata* takes place independently and then gets combine to form *vatarakta*. So the causes of *vatarakta* can be broadly classified into:

Causes Leading to vitiation of *Rakta*:

- Excessive intake of salty, sour, pungent, alkaline, oily, hot and raw food.
- Intake of dry meat especially of aquatic animals or meat in general in excess.
- Excess intake of oil cakes especially of sesame.
- Vegetables such as radish, mushrooms, cauliflower and green leafy vegetables in excess.
- Legumes such as black gram, horse gram, etc. in excess.
- Excess of sugar cane, dairy products such as curd, buttermilk in excess.
- Fermented products especially wine and other alcohols.
- Intake of mutually contradictory food such as intake of very hot and very cold food together.
- Intake of food before the digestion of the previous meal.
- Resorting to anger in excess.
- Sleeping during day time and remaining awake at night.

Causes Leading to Vitiation of *Vata*:

- Excessive intake of astringent, pungent, bitter and dry food.
- Taking very little food or fasting in excess.
- Improper or not doing proper purification of the body for a long time.
- Injuries or trauma.
- Excessive indulgence in water sports, horse riding, jumping, travelling especially in summer, activities which debilitate the body in excess.
- Excessive indulgence in sex.
- Suppression of natural urges.

Samprapthi (Etiopathogenesis):

By the above mentioned factors, both *vata* and *rakta* gets vitiated. The vitiated *rakta* produces hindrance to the passage of *vata* further aggravating the vitiated *vata* which in turn vitiates the entire *rakta* leading to *vatarakta*.

The impure *vata* gets mixed with the vitiated *rakta* and starts moving through the blood vessels and travels through the entire body. While passing through the vessels, the impure *vata* and *rakta* gets obstructed in the joints and gets lodged in the joints. Being localised in the joints, they become further aggravated and also get associated with *pitta dosha* and produce different types of pain in the joints depending on the levels of aggravation.

Normally, *vatarakta* starts to manifest in the smaller joints of hands and feet and further spreads to all other joints in the course of time because of the fluid and mobile nature of *vata* and *rakta*.

Poorvaroopa (Pre-monitory Signs and Symptoms)

- *Swedo atyartham Na VA*: Excess or absence of perspiration (sweating).
- *Karshanyam*: Blackish discolouration of the joints.
- *Sparshagyatawam and Supti*: Insensibility to touch and numbness in the affected joints.
- *Kshatey ati ruk*: Excessive pain if there is injury to the afflicted part.
- *Kandu*: Itching over the joints.
- *Daha*: Localised rise in temperature along with burning sensation in the affected part.
- *Sandhi saithilyam*: looseness of the joints.
- *Alasyam*: Subjective feeling of laziness or tiredness.
- Pricking pain, twitching sensation, splitting pain, heaviness and numbness in the knees, calf region, thighs, umbilical region, shoulders, hands, feet and other joints in the body.
- *Vaivarnya and Mandalotpathi*: Discolouration and appearance of circular patches in the body.
- *Sandhishu ruk bhutva bhutva nasyati*: Intermittent claudication or sudden disappearance and appearance of pain.

Bheda (Types):

Based on different factors, *Raktavata* has 2 different classifications in Ayurveda. They are:

- I. Based On Site And Duration of Manifestation
- II. Based on the *Dosha* Involved

Based on Site and Duration of Manifestation:

1. **Uttana Vatarakta:** Also known as *Bahya Vatarakta*. They are located in the superficial tissues i.e. skin and muscle tissues.
2. **Gambira Vatarakta:** They are deeply seated and are also known as *Abhyantara vatarakta*.
3. **Ubayasrita Vatarakta:** Refers to the *vatarakta* which is located both internally and externally. This is the progressive stage of *vatarakta*.

Based on the *Dosha* Involved:

1. **Vataja Vatarakta:** The dosha predominant here is *vata*.
2. **Pittaja Vatarakta:** The dosha predominant is *pitta*.
3. **Kaphaja Vatarakta:** The dosha predominant is *kapha*.
4. **Raktaja Vatarakta:** The dosha predominant is *rakta*.
5. **Samsrista or Sannipataja Vatarakta:** Caused by the predominance of 2 or 3 or all of the above mentioned *doshas*.

Roopa (Signs and Symptoms):

Based on the location and the predominance of doshas involved, Vatarakta exhibits differently and hence has different signs and symptoms.

Based on the location of manifestation, the signs and symptoms in vatarakta are:

Uttana Vatarakta or Superficial Vatarakta:

- *Kandu* (Itching), *ruk* (aching), *daha* (burning sensation) over the affected part.
- *Ayama:* Dilatation of superficial veins.
- Subjective feeling of involuntary movements such as *spurana* (throbbing sensation), *thoda* (pricking pain) and *akunchana* (contraction) in the affected joints.
- *Syava*, *tamra* and *rakta Varna* of *twak*: Red, blackish brown and reddish discolouration of the skin.

Gambira Vatarakta or Deeply seated Vatarakta:

- *Syavathu* (oedema), *Stabdata* (stiffness), *kaatinyata* (hardness) in the affected part.
- *Arthiman antarbrsam:* Excruciating pain in the interior of the body.
- *Syava or tamra varnata:* Blackish brown or coppery discolouration of the skin.
- *Daha* (burning sensation), *thoda* (pricking pain), *spurana* (twitching sensation) and *paka* (suppuration) of the joints.

Ubayasrita Vatarakta or Progressive Vatarakta:

- *Vakri kurvamcha vegavan:* The vitiated vata moves in high speed all over the body causing various types of pain and also causing damage to the joints.
- *Khanja and pangu:* the damage to the joint causes abnormalities in the gait of the person that he becomes limping or paraplegic, i.e. limiting the motion in the lower half of the body.
- Along with this, all the signs and symptoms associated with the other 2 types of *vatarakta* can also be seen this type of *vatarakta*.

Based on the Predominance of doshas Involved, the signs and symptoms of vatarakta are:

Vata pradhana Vatarakta (Predominance of vata dosha):

- *Sirayama:* Elongation and dilatation of the veins present in the affected region.
- *Atiruk* which can be *Shoola, spurana or thoda:* Excessive pain which can be colicky, throbbing type or prickly in nature.
- *Rooksha, karshanya or syava shotha:* Oedema which is dry and either with blackish or brownish discolouration.
- *Vridhi and hani of shotha:* Oedema is not constant; it either increases or decreases in size from time to time.
- *Sankocha:* Contraction of blood vessels, fingers and joints in the affected limb.
- *Angagraha:* Stiffness of the body especially the joints.

Pitta pradhana Vatarakta (Predominance of Pitta dosha)

- *Vidaha:* burning sensation
- *Vedana:* aching kind of pain in the joint.
- *Moorcha:* Fainting due to pain.
- *Sweda:* Excessive sweating.
- *Trishna:* Morbid thirst.
- *Mada:* feeling intoxicated.
- *Brama:* Giddiness.
- *Raga and paka:* reddish discolouration and suppuration of the affected joint.
- *Shosha:* Emaciation of the afflicted limb.

Kapha Pradhana Vatarakta (Predominance of Kapha dosha)

- *Staimithya:* Feeling inactive.

- *Gaurava*: Heaviness over the affected region.
- *Sneha*: Greasiness over the joints.
- *Supti*: Numbness over the affected part.
- *Mantha ruk*: it's less painful compared to others.

Rakta Pradhana Vatarakta (Predominance of Rakta)

- *Syavathu*: Oedema which is *tamra Varna* (Coppery discolouration of the skin).
- *Ruk and thoda*: Excessive pain with pricking sensation.
- *Chimichimayana*: Tingling sensation in the afflicted part.
- *Kandu and Kleda*: Itching and sloughing over the region.
- *Snigharooksha shamam neti*: Not responding to therapies that are either nourishing or depleting.

Sannipataja vatarakta (Predominance of 2 or more doshas)

- Shows the features of the *doshas* affected or all the above mentioned features.

Upadravas (Complications of Vatarakta)

The complications of vatarakta may be systemic or localised.

Systemic complications include:

- *Aswapna*: insomnia
- *Arochaka*: tastelessness
- *Swasa*: dyspnoea or difficulty breathing
- *Trishna*: excessive thirst
- *Sirograha*: stiffness in the head
- *Jwara*: fever
- *Moha*: state of confusion
- *Mamsa kshaya*: wasting of muscles
- *Pravepaka*: trembling
- *Hikka*: hiccoughs
- *Brama*: giddiness
- *Klama*: mental fatigue
- *Marmagraha*: damage to vital parts
- *Prana kshaya*: diminution of general wellness
- *Kasa*: cough

- *Stabdata*: stiffness of the body
- *Avipaka*: indigestion

Localised complications are those seen in the affected parts in the long run. It includes:

- *Mamsakotha*: necrosis of the tissue
- *Pangulya*: paraplegia
- *Visarpa*: cellulites
- *Paka*: suppuration
- *Toda*: pricking pain
- *Anguli vakrata*: disfigurement of the digits
- *Sphota*: eruptions
- *Daha*: burning sensation

Upashaya (Pacifying Features)

- Eating warm food, light food
- Use of properly cooked and unctuous food
- Use warm water for drinking and other purposes
- Regular exercise usually low impact exercises
- Proper rest
- Yoga

Anupashaya (Non-pacifying Features)

- Use of cold food or food which is cold in potency such as refrigerated foods
- Excess of fried foods, raw food or food which is not properly cooked
- Red meat or food rich in purines
- Cold weather
- Absence of physical activities
- Exercises or physical activities in excess
- Suppression of natural urges
- Smoking
- Alcohol
- Improper sleep

Sadhyasadhyata (Prognosis)

Vatarakta with the following features is considered

1. *Sadhaya* (curable):

- Only one *dosha* is involved in the pathogenesis of the disease
 - Absence of any complications
 - *Vatarakta* of recent onset
 - If the patient is physically strong
2. *Yapya* (palliable):
- Involvement of 2 *doshas* in the pathogenesis
 - Absence of any *upadravas* or with a few *upadravas*
 - *Vatarakta* within 1 year duration
3. *Asadhya* (incurable):
- Involvement of all the *doshas* in the pathogenesis
 - Presence of most of the *upadravas*
 - *Vatarakta* which is chronic.

Chikitsa (Management of *Vatarakta*)

Since *vatarakta* is caused by vitiation of *vata* and *rakta*, the treatments to pacify both *vata* and *rakta* is adopted here. Also the treatment aims at improving the general health of the patient. For this to achieve, treatment of *vatarakta* can be classified into 3 stages:

1. *Shodana* –Elimination of the accumulated toxins
2. *Shamana* –Pacifying therapies
3. *Rasayana* –therapies to bring back the natural strength and vitality

Shodana (Elimination Therapies)

- i. *Raktamokshana* (Blood-letting): This is considered to be the first line of treatment in severe cases of *Raktavata*. The aggravated *vata* in its morbid condition creates obstruction to the channels of *rakta* in the afflicted regions. In order to remove these obstructions, bloodletting is considered to be very effective. Bloodletting using leeches is a common elimination therapy in Ayurveda. Frequent *raktamokshana* in smaller amounts is done here.
- ii. *Snehapana*: Internal administration of medicated oil or ghee is done here. This is done prior to other elimination therapies in order to prepare the body for the elimination.
- iii. *Virechana*: After the body is properly oiled, purgation is induced in the patient. *Mrdu* (soft) purgation is often justified in people suffering from *vatarakta*. *Eranda taila*, *avipathi choorna*, etc. can be used for this purpose.

By *virechana*, the vitiated *pitta* and *rakta* gets eliminated.

- iv. **Vasti karma** (Enema): Now the treatment for the elimination of aggravated *vata* is to be done. *Vasti* is considered to be the ideal treatment for *vata*. It is of 2 types:
- a) **Niruha Vasti**: administration of medicated decoctions which has both *vatahara* and *pittahara* properties are used. *Ksheera vasti* is considered to be ideal for *Raktavata*.
 - b) **Anuvasana Vasti**: Administration of medicated oils for enema which is *vatahara* and *pittahara* in nature. E.g. *Balataila, madhuyasti taila, ksheerabala taila, etc.*

Samana Chikitsa (Pacifying Therapies)

A combination of external therapies along with internal medications is adopted here. The extremely aggravated doshas are eliminated now. The remaining doshas are pacified and correction of the altered entities is done here. It is further classified to:

- a) **Bahya Chikitsa:**
- i. **Dhanyamladhara**: Done to relieve the inflammation. Pouring of warm fermented liquids obtained after cereals and is other medicines are poured over the patient in monitored streams.
 - ii. **Kashayadhara**: Pouring of herbal decoctions made out of specific herbs in a rhythmic manner. Acts as anti-inflammatory.
 - iii. **Choornapinda Sweda**: after the inflammation is reduced, herbal powders fried in medicated oils is made into a poultice and rubbed against the painful region for a fixed duration of time. It reduces pain and also strengthens the joint and the associated soft tissues.
 - iv. **Patrapinda Sweda**: Here, herbal drugs or leaves of medicinal plants are boiled or fried in medicated oils, made into poultice and rubbed against the painful region. Acts as analgesic and strengthens the joints and muscles.
 - v. **Vestana**: bandaging the affected joint for a compression effect. Helps in reducing pain.
 - vi. **Pradeha**: local application of paste made out of medicinal herbs in the affected region. Used to reduce the increased *kapha dosha* if present.
 - vii. **Abhyanga**: massage with medicated warm oil. It strengthens the joints, muscles and tissues around. Mild massage is preferred in *vatarakta*. *Pinda taila, madhuyasti taila, bala taila, ksheerabala taila, etc.* are used.

b) **Abyanata Chikitsa:**

Common internal medications used in *Raktavata* are:

- i. **Decoctions** such as *Kokilaksha kashayam, patolakaturohinyadi kashayam, manjistadi kashayam, tiktakam kashayam*, etc.
- ii. **Tablets** such as *amrita Guggulu, kaishora Guggulu, punarnavadi Guggulu*, etc.
- iii. **Choorna** such as *avipathi choorna, hinguastakam choornam, amrita choornam, Shaddharanam choornam*, etc.
- iv. **Asavaristas** such as *dashamoolarista, dathryarista, asokarista*, etc.

Rasayana Chikitsa (Rejuvenating Therapies)

By these treatments, the body has become weak especially the joints. So some treatments to provide nourishment are done. Also they restore the natural strength and vitality of the body. This can again be classified as:

a. Bahya Chikitsa (External)

Includes:

- i. **Shastika shalipinda Sweda or Njavarakizhi**: a procedure in which special type of rice called *Shastika shaali* is prepared in milk processed with herbal medicines is made into poultices and rubbed on the affected body part, this gives nutrition and strength to the region. Instead of poultice, it can also be used as a paste to be applied on the affected region.
- ii. **Kati, Janu, Uro or Greeva Vasti**: Involves specially prepared warm herbal oil being poured and retained inside flour dough boundary kept in the lower back, knees, thorax, back of the neck respectively for a specified duration of time. It strengthens the muscles and connective tissue and also lubricates the joints and makes them more flexible. *Dhanwantaram tailam, Mahanarayanatailam* can be used.
- iii. **Nasyam**: Nasal drops of medicated oils are used. Improves the functioning of the nervous system. *Ksheerabala taila* is an ideal choice.
- iv. **Pizhichil**: Also called as oil bath. A procedure in which warm made out of specific herbs is poured with a specific vessel from a certain height in rhythmic manner and is rubbed into the body. Again act as nourishing in nature.

b. Abhyantara Chikitsa (Internal medications)

- i. **Grithayogas (Ghee)** such as *guduchigruta, satavatigruta, amruthaprasham* etc. can be used.
- ii. **Avalehas** such as *chyavanaprasam, mudhusnuhirasayanam*, etc.
- iii. **Vardhamana pippali Rasayana** is an ideal choice in *vatarakta*.

Key Drugs in Vatarakta

1. *Kokilaksha* (*Asteracantha longifolia*)
2. *Guduchi* (*Tinospora cordifolia*)
3. *Hareetaki* (*Terminalia chebula*)
4. *Aragwada* (*Cassia fistula*)
5. *Ashwattha* (*Ficus religiosa*)
6. *Trivrit* (*Operculina turpethum*)
7. *Shunti* (*Zingiber officinale*)
8. *Guggulu* (*Commiphora mukul*)

Home Remedies

- Drinking plenty of water helps in reducing the swelling.
- Eating a low fat, non dairy diet that is rich in vegetables.
- Applying ice pack to the affected joints
- Elevating the affected joints to reduce swelling.
- Drinking coffee.
- Eating more cherries. Cherries have anti inflammatory compounds that help in reducing gout attacks.
- Drinking lemon water. It helps in reducing the uric acid levels in the body.
- Use of ginger in everyday diet.
- Meditation.
- Regular exercise.
- Getting enough rest.

Yoga asanas recommended in Gout

- *Ardha matsyendrasana* (The spinal twist pose)
- *Bhujangasana* (The cobra pose)
- *Dhanurasana* (The bow pose)
- *Halasana* (The plough pose)
- *Januhastasana* (The hand to knee pose)
- *Makarasana* (The crocodile pose)
- *Pavanamuktasana* (The wind relieving pose)
- *Tadasana* (the mountain pose)
- *Trikonasana* (The triangle pose)
- *Veerasana* (The hero pose)
- *Vrikshasana* (The tree pose)
- *Pranayama* (Breathing techniques)

Dos and Don'ts

<i>Pathya</i>	<i>Apathya</i>
Cereals like old barley, wheat, red rice.	Red meat such as beef, lamb, pork and organ meat including liver, kidneys and brains
Pulses such as green gram, Bengal gram with liberal quantity of ghee	Green leafy vegetables
Vegetables such as bitter gourd, ash gourd, kalia, cabbage, squash, red bell pepper, beetroot	Fish such as anchovies, mackerel, tuna, haddock, etc.
Fruits rich in vitamin C such as oranges, tangerines, papaya, cherries	Sea food including scallops, crab, shrimps and roe
Low fat milk including cow and goat milk, low fat yogurt	Fruit juices and sugary sodas, salted foods
Whole grain breads and pastas	Honey, high fructose corn syrup, yeast
Coffee and tea	Alcohol
Meat of chicken and peckering birds	Smoking
Yoga	Suppression of natural urges
Mild massaging	Exposure to heat
Soft pillows	Excessive indulgence in sex and exercises
Ice packs	Sleeping during day time

Clinical experience

46 year old man complaints of gradually progressive pain in both lower limbs associated with swelling over ankle joints which are more on the left ankle joint.

On examination, there was swelling in both the ankle joints along with slight blackish discolouration.

Also on blood examination, the patient has raised erythrocyte sedimentation rate (ESR) and uric acid levels.

The following treatment procedures were adopted during his stay in our hospital:

- *Sarvanga Dhanyamladhara* for the first 4 days along with application of *jadamayadi lepa* over the ankle joints.
- Since day 1, patient was advised to take *avipathi choorna* along with hot water at bed time
- Since day 5 *yoga vasti* was started with *madhuyasti taila Anuvasana vasti and tikta Ksheera Niruha vasti*.
- *Abhyanga* with *pinda taila* was done during this period
- After *yoga vasti*, *nasya* with *ksheerabala taila* for 7 days was done.

- *Pizhichil* with *mahanarayana tailam* for the last 4 days.
- He was given *kokilaksham kashayam*, *kaishora Guggulu* as internal medications during this period.
- Along with this he was put on strict diet and advised to practice yoga.

After the treatment, there was marked reduction in swelling and pain of the patient which according to his words was a 70% recovery.

Advice on discharge:

- *Patolakaturohinyadi kashayam* with *kaishora Guggulu* twice daily for 3 months.
- *Shaddharanam choornam* thrice daily for 2 months.
- *Avipathi choornam* with warm water at bedtime for 3 months.
- *Pinda taila* for application over the ankle joints.
- *Amrita choornam* with warm water early morning empty stomach for 6 months.
- Diet and exercise routine was advised.

Conclusion

Modern era is an era of sedentary life style. Due to this altered life style and food habits, human beings are more vulnerable to many disorders. Vatarakta or gout is a common presentation. Gout can cause severe pain that make it tough for people to get around, go to work and complete daily tasks. This impact on daily life can impact patients' mental, social and physical well being. Both prevalence and incidence of gout seem to be rising across the globe. Management of gout continues to be poor, with less than one half of the patients receiving definitive curative urate-lowering therapy. Also adherence of the patients to the urate lowering therapy is poor and rates of non-persistence are high.

Ayurvedic medicines along with strict diet and regimens can easily lower the uric acid levels and prevent the further progression of the disease. Also, Ayurveda is *found* to be more effective in the treatment of gout along with its co morbidities and complications, thus reducing the sufferings of the people.

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