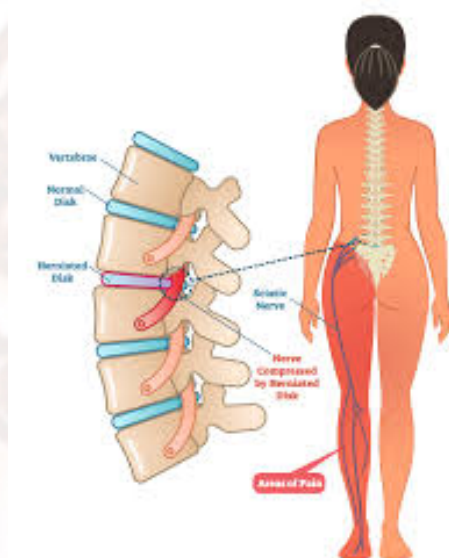


SCIATICA

Sciatica describes nerve pain in the leg that is caused by irritation and/or compression of the Sciatic nerve. Sciatica originates in the lower back, radiates deep into the buttock and travels down the leg.

Sciatica is a direct result of sciatic nerve or sciatic nerve root pathology. The sciatic nerve is the largest nerve in the body with about 2cm in diameter. It arises from the L4, L5, S1, S2 and S3 spinal roots and exits the pelvis posteriorly through the greater sciatic foramen. This nerve provides direct motor function to the hamstrings, lower extremity adductors as well as indirect motor function to the calf muscles, anterior lower leg muscles and some intrinsic foot muscles. Indirectly, through its terminal branches, the sciatic nerve affects also the posterior and lateral lower leg as well as the plantar foot. So any irritation to this nerve can cause pain and/or paresthesias starting from lower back and can extend till the feet.



Sciatica is a debilitating condition in which the patient experiences pain and/or paraesthesia in the distribution of the sciatic nerve or of an associated lumbosacral nerve root. The lifetime incidence of this condition is estimated to be up to 40 %. The condition can become chronic and intractable, with major socio-economic implications.

ETIOLOGY

- Lumbar spinal stenosis
- Herniated or bulging lumbar intervertebral disc
- Spondylolisthesis
- Relative misalignment of one vertebra relative to another
- Lumbar or pelvic muscle spasm or inflammation

- Spinal or Paraspinal masses included malignancy, epidural haematoma or epidural abscess
- Lumbar degenerative disc disease
- Sacroiliac joint dysfunction

EPIDEMIOLOGY

GENDER: There appears to be no gender predominance.

AGE: Peak incidence occurs in patients in their 40s. Rarely occurs before age 20 unless traumatic.

GENETICS: Some studies show genetic predisposition

BODY HEIGHT: Not associated with body height except in age 50-60 group.

- **BODY WEIGHT:** Excess body weight puts stress on your spine which can cause spinal disorders which can ultimately lead to sciatica.
- **DIABETES:** Having diabetes can increase your risk of nerve damage.
- **SMOKING:** Increases the risk of having sciatica.
- **OCCUPATION:** A job that requires you to twist your back, carry heavy loads or drive a motor vehicle for long period might play a role in sciatica. Also people who sit for prolonged periods or have a sedentary life style are more prone to develop sciatica than active people are.

Signs and Symptoms

- ✓ **PAIN:** Sciatica pain is typically felt like a constant burning sensation or a shooting pain starting in the lower back or buttock and radiating down the front or back of the thigh and leg/or feet.
- ✓ **NUMBNESS:** Sciatica pain may be accompanied by numbness in the back of the leg. Sometimes tingling and/or weakness may also be present.
- ✓ **ONE-SIDED SYMPTOMS:** Sciatica typically affects one leg. The condition often results in a feeling of heaviness in the affected leg. Rarely, both legs may be affected.
- ✓ **AGGRAVATING FACTORS:** Sciatica symptoms may feel worse while sitting, trying to stand up, bending the spine forward, twisting the spine, lying down, and/or while coughing.
- ✓ **RELIEVING FACTORS:** The pain gets relieved by walking or applying a heat pack over the rear pelvic region.

Types

1. **Acute Sciatica:** recent onset, 4-8 week duration of sciatic nerve pain. The pain is self-managed and may not typically require medical treatment

2. **Chronic Sciatica:** The pain that lasts for more than 8 weeks and usually does not subside with self- management. Requires medical assistance.
3. **Alternating Sciatica:** The pain that affects both legs alternately. Rarely seen.
4. **Bilateral Sciatica:** Pain that occurs in both the legs together. Also seen rarely.

Diagnosis

Sciatica is a symptom which varies from one person to another and depends upon the causes causing it. The diagnosis is done through:

- **Detailed medical history** of the patient.
- **Physical Examination** which includes Straight Leg Rising Test (MLRT), testing muscle strength and reflexes and examining the nerve impulses.
- **Imaging Techniques:** usually recommended in case of a chronic pain. The common imaging techniques used are spinal x-rays, MRIs and CT scans.

Management

1. A short course of oral (NSAIDs)
2. Opioid and non-opioid analgesics
3. Muscle relaxants
4. Anticonvulsants for neurogenic pain.
5. Oral corticosteroids if the oral NSAIDs are insufficient.
6. Localized corticosteroid injections.
7. Deep tissue massages.
8. Physiotherapy.
9. Surgical evaluation and correction of any structural abnormalities if present.

SCIATICA IN AYURVEDA

Sciatica is described as Gridhrasi in Ayurveda. Gridhra refers to Vulture. The gait of the person affected by the disease resembles to the walk of a vulture and hence called as Gridhrasi.

Gridhrasi is classified as a disease caused by vitiation of vata dosha in the body. Sometimes vitiation of kapha dosha along with vata dosha also causes sciatica.

Nidana (Etiology)

All the causes which can cause the vitiation of *vata dosha* can lead to sciatica. The factors which cause *vata dosha* vitiation are:

Aharaja (Inappropriate Diet)

- intake of unctuous food (e.g. deeply fried food, dry food)
- intake of cold items (refrigerated food, frozen desserts and food cold in potency)
- intake of inadequate quantity and very light food which has astringent, pungent and bitter in taste,
- fasting in excess
- formation of *Ama* (product of inappropriate digestion and metabolism)

Viharaja (Inappropriate Activities)

- exercises, swimming and other physical activities in excess
- using uncomfortable beds or seats
- riding elephants, camels, horses or fast moving vehicles for longer periods and falling down from the seats of these animals or vehicles
- excessive sexual indulgence
- remaining awake at night in excess
- sleeping during day time,
- suppression of natural urges

Manasika (psychological)

- excessive anger, fear, worry and grief

Abhighataja (Traumatic)

- suffering from some kind of trauma
- injuries to vital spots
- excessive emaciation due to some diseases

Other causes

- inappropriate therapeutic measures such as emesis, purgation, enema, massages in wrong postures, etc.
- administration of therapies which cause excessive loss of *doshas* (including stool), blood
- loss of tissue elements

Samprapthi (Etiopathogenesis)

Because of the above mentioned factors, the aggravated *vata* enters the hip region and fills up the channels of circulation which are either empty or have become weak in quality and produces stiffness and pain in the region which further moves down to the leg resulting in *Gridhrasi* (sciatica).

Poorva roopa (pre-monitory signs and symptoms)

- Mild pain and stiffness in hip region
- Constipation
- Feeling of heaviness in the affected limb

Bheda (Types)

1. *Vataja*: There is involvement of only *vata dosha*
2. *Vatakaphaja*: Along with *vata dosha*, *kapha dosha* is also vitiated here

Lakshanas (Symptoms)

Vataja Gridhrasi:

- *Stamba* (heaviness)
- *Ruk* (pain)
- *Thotha* (pricking sensation)
- *Spandana* (twitching sensation)

All these symptoms starts in the *svik* (hip region) and gradually moves down to the *kati* (waist), *pristha* (lower back), *uru* (thigh), *janu* (knee), *janga* (calf region) and *patha* (feet). With all these symptoms the patient finds difficulty walking and also suffers of insomnia due to pain.

Vata kaphaja Gridhrasi:

Along with the symptoms associated with *vataja* type, the patient also experiences the following symptoms:

- *Tantra* (drowsiness)
- *Gaurava* (heaviness of the whole body)
- *Arochaka* (anorexia)

Upashaya (Pacifying Factors)

- Yoga
- Using posture correctors and back supports
- Use of heat and cold packs in the lower back
- Staying active within limits imposed by pain
- Walking
- Maintaining proper diet – including more of foods which is sweet and unctuous and that which does not aggravate vata
- Stretching exercises
- Sleeping on a firm surface with a pillow under his or her knees

- Deep breathing exercises like *Pranayama*

Anupasaya (Non-pacifying Factors)

- Poor posture and improper body alignment
- Wearing tight fitting clothes
- Sitting for long periods with hard objects in the back pocket
- Using shoes with high heels
- Excessive body weight
- Sedentary life style
- Depression and negative emotions
- Bending over when lifting heavy objects
- Improper diet (quantity and quality)
- Improper sleeping and lying postures
- Smoking
- More carbohydrates and fats in the diet

Chikitsa (Treatment)

As this is one of the diseases caused by *vata dosha*, a general line of treatment to stabilize *vata dosha* is done here. The aim of treatment is to bring back the aggravated *vata* or *vata kapha doshas* to equilibrium and thereby restore the state of health. It mainly comprises of 3 stages:

1. **Shodana** - Elimination of the accumulated toxins
2. **Shamana** - Pacification and correction of the entities responsible for the altered function
3. **Rasayana** - Restoring the natural strength and vitality.

Shodana

Before *Shodana*, the body of the patient should be well prepared. This is done through *snehana* and *swedana*. Also in *vata* prominent diseases, *snehana* and *swedana* is considered to be the first line of treatment.

1) **Snehana** (Oleation): the patient is treated by Oleation with various medicated ghee, oil, muscle fat, bone marrow, etc. This reduces *Rooksha guna* (ununctousness) of the body caused by vitiated *vata*. Oleations nourish the emaciated tissue, promote strength and also improve digestion and metabolism.

2) **Swedana** (Sudation): after Oleation the patient should be given sudation therapy. It can be done through various fomentation therapies like *nadi sveda*, tub bath, steam bath, etc.

By *Snehana* and *swedana* the *kosta* (viscera of abdomen and thorax) becomes soft and the *vata* gets dislodged and will not have an opportunity to get lodged there. The dislodged *vata* is further eliminated.

- **VASTI:** In Ayurveda, *Pakvasaya* (large intestine) is considered to be as one of the major seats of *vata*. Hence *Vasti* (enema) is considered as the ideal treatment for *vata*.

Vasti is of 2 types:

- a) **Niruha:** administration of enema with decoctions which has *vatahara* property and also with drugs which has *deepana* (digestive stimulant) and *pacana* (carminative) in nature.
- b) **Anuvasana:** administration of enema with medicated oils which has *vatahara* properties.

A combination of both these enemas alternatively is given in order to eliminate the vitiated *vata dosha*.

- **VIRECHANA-** *Mrdu* (soft) purgation with drugs which is unctuous in nature is preferred, e.g. *eranda taila*

Samana

It consists of a combination of therapies along with different medications to be taken internally. So this can again be classified into two: **Bahya chikitsa** (external therapies) and **Abyantara chikitsa** (internal medications)

1) **BAHYA CHIKITSA:**

Consists of different procedures like:

- a) **Dhanyamla Dhara:** a procedure in which the warm or hot fermented liquid obtained after cereals and other medicinal herbs is poured over the body of the patient in monitored streams. This usually reduces inflammation in the affected region.
- b) **Kashaya dhara:** a procedure in which an herbal decoction 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 anti- inflammatory.
- c) **Choorna Pinda Sweda:** Procedure in which herbal powders are heated or fried in herbal oils and tied in a poultice to rub against the painful region for a fixed duration of time. This reduces the pain and related conditions, strengthen and rejuvenate the joints, muscles and soft tissues.

d) **Patrapinda Sweda**: procedure in which the herbal drugs or leaves of medicinal plants obtained from nature is boiled or fried in herbal oils ;made into poultice and used to rub against the painful region. Acts an analgesic and also rejuvenates the joints and muscles.

e) **Naadi sweda**: it is a form of sweating treatment in which the steam or vapours coming through a tube are made to reach the affected body part after an oil massage. This reduces pain and stiffness in the region.

f) **Pradeha and Upanaha**: local application of paste prepared out of herbal medicines in the affected region .Usually applied to reduce increased *kapha dosha*.

e) **Siravyedha**: venesection or bloodletting-It is advised to perform 3 *angula* below or above the knee joint. Done to remove the obstruction to *vata* movement if present.

f) **Agnikarma**: Cauterisation-done in the low back region to reduce nerve irritation.

2) ABHYANTARA CHIKITSA:

Consists of medicines to be taken internally. Includes:

- Decoctions such as *Maharasnadi kashayam, Gandharvahastadi kashayam, Rasnasaptakam kashayam, Sahacharadi kashayam, etc.*
- Tablets such as *Chandraprabha vati, Yogaraja guggulu, Gokshuradi guggulu, Kairashora guggulu, etc.*
- *Aristas* such as *Dashamoolrista, Jeerakarista, Abhayarista, etc.*
- *Choornas* such as *Vaishwanara choorna, Triphala choornam, Astachoornam, etc.*

Rasayana chikitsa (Rejuvenating therapies)

Includes therapies which are done to restore and improve normal strength. The therapies include:

- **Abhyangam**: whole body massage with medicated oil. Provides nourishment to the affected region. Also improves circulation. Oils such as *Sahacharadi tailam, Kottam chukkadi tailam, Dhanwantaram tailam, Vishagarbha tailam, Karpasastyadi, etc.* can be used.
- **Shastika shali pinda sweda or Njavarakizhi**: a procedure in which special type of rice called *shastika shaali* is prepared in milk processed with herbal medicines, 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.
- **Kati Vasti**: involves specially prepared warm herbal oil being poured and retained inside flour dough boundary kept in the lower back for a specified duration of

time. It strengthens the muscles and connective tissue and also lubricates the joints and makes it more flexible.

- **Nasyam**: nasal drops of medicated oils are used. Improves the functioning of the nervous system.

Key Drugs

1. **Nirgundi** (*Vitex negundo*)
2. **Bala** (*Sida cordifolia*)
3. **Punarnava** (*Boerhavia diffusa*)
4. **Eranda** (*Ricinus communis*)
5. **Shigru** (*Moringa oleifera*)
6. **Rasna** (*Alpinia galanga*)
7. **Jambira** (*Citrus limon*)
8. **Guggulu** (*Commiphora mukul*)

Home Remedies

- Use of hot or cold packs for comfort
- Exercises to improve the core strength and erect postures
- Regular light exercises such as walking and swimming
- Gentle stretching of lumbar spine and hamstrings

Yoga Poses Advised in Sciatica

1. **Sarpasana**
2. **Salabhasana**
3. **Dhanurasana**
4. **Pavanamuktasana**
5. **Bhujangasana**
6. **Sethubandhasana**

Dos and Don'ts

Pathya(Dos)	Apathya(Don'ts)
Freshly prepared warm, moist and easily digestible food	Dried vegetables and meat
Spices like cumin, asafoetida, turmeric, ginger, ajwain	Dried pulses and legumes
Cereals like wheat, red rice	Frozen and canned foods
Pulses like black gram, green gram horse gram	Peanuts and Bengal grams

Fruits which are sour in taste like pomegranate, grapes	Suppression of natural urges
Vegetables like snake gourd drum sticks, leafy vegetables	Day sleep and sleepless nights
Milk	Excessive indulgence in sex
Ghee	Heavy exercises
Meat soup	Long drives
Yoga	Carrying heavy loads
Stretching exercises	Exposure to cold
Warm water bath	Alcohol and smoking

Clinical Experience

A female patient aged 60 complained of pain in the lower back region which was radiating to the left lower limb since 6 months as well as of pain while walking along with difficulty bending. She also complained of constipation since 1 year.

On examination SLRT was found positive at 45 degrees.

She was having *vata* kind of body constitution

The treatment procedures done for her during her 15 days stay included:

1. *Dhanyamladhara* for 4 days
2. *Abhyangam* with *Sahacharadi tailam* and deep tissue massage for the back.
3. *Patra pinda swedam* with leaves of *eranda*, *nirgundi*, *arka* and *shigru*
4. *Yoga Vasti: Niruha Vasti* with *Dashamoola niruha vasti* and *Sahacharadi taila anuvasana vasti* for 8 days
5. *Kati vasti* with *Dhanwantaram tailam* for 7 days
6. *Shastika shaali* application over the lower back after *Kati vasti*
7. Regular bandage to the lower back at night
8. *Nasyam* with *Ksheerabala tailam* early morning

Also she was kept on a strict diet and was advised to do yoga and certain stretching exercises.

It was observed that the pain over the lower back reduced and there was no difficulty walking. The radiating pain has considerably decreased and on examination SLRT became positive at about 75 degrees.

Advices on discharge:

1. *Maharasnadi kashayam*: twice daily for 3 months
2. *Tab Dhanwantaram* along with the *kashayam*
3. *Eranda taila* with luke warm water at night for 2 months

4. *Sahacharadi tailam* for application over the lower back
5. *Pratimarsha Nasyam* with Ksheerabala tailam early morning

Diet advices were given and Yoga asanas beneficial for sciatica were explained.

Conclusion

Gridhrasi or sciatica is a condition that makes the person cripple in longer time period. Though it is not found to be life threatening, it can limit the daily activities of the person and hence is a serious condition. Sciatica can cause immense pain. Living with the pain and with limited activities can also affect the psychological wellbeing of the person. These days the lack of regular exercises and retorting to more sedentary life style, the incidence of sciatica is found to be increasing. Ayurveda with its holistic approach proved to be highly effective in the treatment of sciatica. Ayurvedic treatments together with a strict diet and regular exercise can easily manage the condition to a greater extend. In addition, the chances of recurrence are found to be very low. Ayurvedic treatments provide renewed confidence in life and the person can walk out pain free and stress free.

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