

Role of Kati Basti in the Management of Gridhrasi (Sciatica)

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Abstract- One of the most prevalent musculoskeletal system disorders is low back pain. Low back pain is more common in males than in women, with the highest prevalence occurring in those between the ages of 20 and 60. In India, the reported lifetime incidence ranges from 10% to 40%, with an annual incidence of 1% to 5%. It begins at the hip and works its way down to the waist, thigh, knee, calf region, and foot. This condition worsens because of a variety of reasons, including unhealthy Dietary habits and a Sedentary lifestyle. We can associate this with "Sciatica" in contemporary science based on the observed signs and symptoms. Because the Sciatic nerve is involved, the condition is called Sciatica. According to Ayurveda, this condition is called *Gridhrasi*. This is a type of *Vatavyadhi* and *Vata dosha* circulates throughout the body. Among all *Vatavyadhis*, *Gridhrasi* is defined under *Vata Nanatmaj Vyadhi*. According to *Acharya Charak*, there are 80 types of *Vata Nanatmaj Vyadhi*. According to various *Acharyas*, there are *Gridhrasi* is mainly cause by two *Doshas*, which are *Vata* and *Kapha*. *Panchakarma Chikitsa* is also helpful for the treatment of this serious disease, along with *Aushadhiya Chikitsa*. It is a type of *Vatavyadhi*, so *Basti* is its best treatment, out of which *Kati Basti*, *Matra Basti*, and *Niruha Basti* are the main ones. *Kati Basti* is an external therapy that acts as both *Snehan* and *Swedan* therapy.

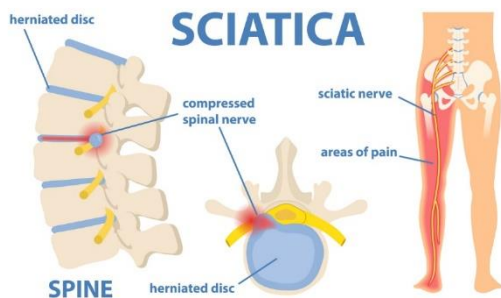
Keywords – *Vatavyadhi*, *Gridhrasi*, *Sciatica*, *Basti*.

INTRODUCTION

Ayurveda an Indian system of medicine comprises holistic science dealing with many diseases that do not have clear and detailed etiopathology. *Gridhrasi* is one of them. In this Modern era, busy life, long duration of sitting posture for office work traveling, overweight

lifting, etc. These factors create the platform of disease, this stressful life leads to many diseases like Lower back pain, Cervical spondylosis, Obesity, and many more. Lumbago or low back pain is the most prevalent medical reason for incapacity to work. However, rather than being caused by intervertebral disc herniation, the majority of patients have abnormalities of the lumbar spine's joints and ligaments. According to published research, the prevalence of sciatica symptoms varies greatly, from 1.6% in the overall population to 43% in a subset of the working population. 50–70% of people will experience low back pain in their lifetime, and over 40% will experience sciatica. Clinically severe sciatica, however, affects 4-6% of people. Pain is the primary symptom of this illness, which significantly lowers human activity in social, professional, and personal spheres.

The piercing pain in this case limits the affected leg's range of motion, causing them to walk like a bird vulture and placing them in an embarrassing situation. The most common age group for Sciatica is 20-60 year of age. In Classical texts, *Gridhrasi* was mentioned under *Vata Vyadhi* which is compared to the Nervous system in Contemporary science. The body constitutes 3 types of *Dosha* i.e. *Vata*, *Pitta*, and *Kapha*. The word *Vata* means to blow or to move like wind. The *Vata Dosha* is related to coldness, lightness, and space. This illness is similar to the *Gridhrasi* ailment that is discussed in Ayurveda about *Vatavyadhi*.



According to *Acharya Charak*, *Gridhrasi* is one of the 80 types of *Nanatmaja Vyadhi*. The feminine term *Gridhrasi* is derived from the *Dhatu* "*Gridhu*," which implies to want, desire, and strive after with avarice and eagerness. The word itself denotes the altered gait displayed by the patients as a result of severe pain, similar like *Gridhra* (Vulture). This illness not only causes pain but also makes walking difficult, which is extremely upsetting for the sufferer. *Ruk*, *Toda*, *Stambha*, *Spandana* in the *Sphik*, *Kati*, *Uru*, *Janu*, *Jangha*, and *Pada*, *Tandra*, *Gaurava*, and *Arochaka* are the cardinal signs and symptoms.

Based on the symptoms, *Sciatica* can be correlated with *Gridhrasi* in *Ayurveda*. The name "*Sciatica*" refers to pain that can be felt anywhere along the sciatic nerve, but it is most usually caused by a prolapsed intervertebral disc. The condition is characterized by pain that radiates from the back into the buttock and into the lower extremities along its posterior or lateral aspect. *Sciatica* is one such illness that is becoming more common in the current environment.

AIMS AND OBJECTIVES: -

To Study the Effect of *Kati Basti* in *Gridhrasi* (*Sciatica*).

MATERIALS AND METHODS

Classical *Ayurvedic* scriptures, various articles, and commentary, as well as thoroughly examined and analysed research papers that have been done in the past.

ACCORDING TO MODERN SCIENCE: -

SCIATICA

Any ailment that compresses or affects the sciatic nerve structurally may result in *sciatica* symptoms. The most frequent reason for *sciatica* is a bulging or

ruptured lumbar intervertebral disc. Lumbar spinal stenosis in elderly persons may also result in these symptoms. *Sciatic* symptoms may also be caused by spondylolisthesis, or a misalignment of one vertebra relative to another. *Sciatic* symptoms can also be brought on by inflammation or spasms in the pelvic or lumbar muscles impinging on a sacral or lumbar nerve root. *Sciatica* symptoms may also be brought on by a mass-like effect from a spinal or paraspinal mass, including a malignancy, an epidural hematoma, or an epidural abscess.

Composition of *Sciatic Nerve*: *Sciatic nerve* is the thickest nerve in the body. *Sciatic nerve* is composed by primary rami of L4, L5, S1, S2, & S3 Nerves. Due to compression of the nerves or nerve roots, the symptoms of *Sciatica* appear.

ACCORDING TO AYURVEDA: -

GRIDHRASI

Etymology: - The *Dhatu* "*Gridh*" is what creates the word "*Gridhra*," which is the root of the term "*Gridhrasi*". "*Gridhra*" refers to the individual with an insatiable urge to consume meat, and "*Gridhrasi*" refers to the disease that typically affects these people.

Nidan: - All of the *Vata Vyadhi's* etiological components are regarded as *Nidana* of *Gridhrasi*, and the following subtitles elucidate this:

- 1) *Aharaj Nidan*
 - 2) *Viharaj Nidan*
 - 3) *Manasik Nidan*
 - 4) *Anya*
1. *Aharaj Nidan*: - *Ruksha* (Rough), *Sheet* (Cold), *Laghu* (Light), & *Alpa Anna sewan* (Low in quantity), *Aam dosh*.
 2. *Viharaj Nidan*: - *Ati Vyayam* (Over exercise), *Ati vyavaya* (Excessive Sexual activity), *Ratrijagarana* (Late night sleeping), *Divashayan* (Day sleeping), *Langhan* (Fasting), *Plavan*, *Viruddha Cheshta* (Improper physical activity), *Vega Sandharana* (Suppression of Urges), *Abhighat* (Injury), *Sheeghra Yaan sewan*, *Marmaghat*.
 3. *Manasik Nidan*: - *Chinta* (Anxiety), *Shok*, *Krodh* (Anger), *Bhaya* (Fear).
 4. *Anya Nidan*: - *Roga Ati Karshan*, *Dhastukshaya*, *Ati sruk Sravan*, *Visham Upchaar*.

Lakshana: –

According to *Charak Samhita* –

In *Gridhrasi*, the pain starts from *Sphik* and radiates downwards *Kati*, *Prishtha*, *Uru*, *Janu*, *Jangha*, *Pada*. Patients feel like *Stambha*, *Ruk*, *Toda* and difficulty in walking.

According to *Sushrut Samhita* -

When the *Kandaras* and *Pratyanguli* become inflamed due to *Vata* and stop the circulation of the Foot (*Sakthi*), then it is called *Gridhrasi*. The same opinion is also held by *Vridha Vagbhatta* and *Laghu Vagbhatta*. He had not mentioned the different types of *Gridhrasi*.

Madhav Nidan –

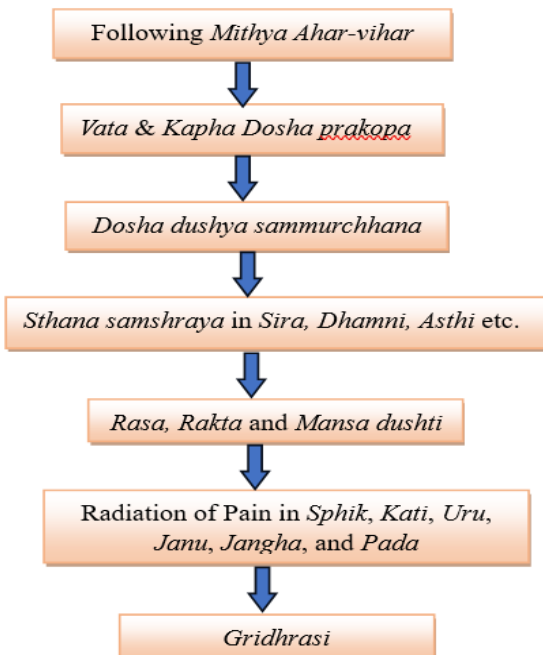
Vataj Gridhrasi –

- *Toda* (Pricking pain)
- *Deha Pravakrata* (Typical posture of the leg/body)
- *Kati*, *Uru*, *Janu Sandhi Sphuran*, *Stabdhatta* (Stiffness and tingling sensation in the joints of waist, thigh, and knee)

Vata-kaphaj Gridhrasi –

- *Agnimandya* (Poor appetite)
- *Tandra* (Drowsiness)
- *Mukha praseka* (Excessive salivation)
- *Bhaktadvesha* (Anorexia)

Samprapti: -



Chikitsa: – Various *Acharyas* have mentioned many types of *Chikitsa kram* for the treatment of *Gridhrasi*, some of which are as follows:

No.	Acharyas	Chikitsa
1.	Charak	Snehan, Swedan, Basti, Siravedh, Agnikarma
2.	Sushrut	Siravedh
3.	Vagbhatta	Snehan, Swedan, Basti, Siravedh, Agnikarma
4.	Harit	Snehan, Swedan, Siravedh, Agnikarma
5.	Bhavprakash	Snehan, Swedan, Vaman, Virechan, Basti

KATI BASTI: -

Derivation of the Word *Kati Basti*:

Katibasti is made of two words- *Kati* and *Basti*.

Kati: It is described as “*Sariram vatasthaneshvekam*” in the *Charak Samhita*, implying that it is the *Sthana* of *Vata*. In the *Susruta Samhita*, the *Pramana* of *kati* is described as having 18 *angulis*.

Basti: The term “*Basti*” is derived from the root “*Vas*,” which is suffixed by “*Tich*” *pratyaya* to form the word “*Basti*,”. The root “*vas*” has the following meanings, according to *Vachaspatyam*:

- “*Vas-nivase*” - indicates to continue, to stay.
- “*Vas-acchadane*” - implies a wrap or envelope.

In this instance, *Kati Basti* is called “*Vas Aachhadane*”. The word means “to cover,” “that which surrounds,” or “*Aavaranam*”. Because of this, “*Dharana*,” or the keeping of a material in the *Kati pradasha* for a predetermined amount of time, may be considered *Basti*. The meaning of the word *Vas Nivase* is “to reside.” This particularly applies to *Uttara Basti*, *Anuvasana*, and *Niruha*.

A unique kind of lumbar or low back therapy is called *Kati Basti*. The terms “*Kati*” and “*Basti*” denote low back or waist, respectively. Using hot oil or herbal decoctions, *Kati Basti* is an Ayurvedic lumbosacral rejuvenation therapy. This process can be used to achieve both sudation and local oleation.

PROCEDURE

- Water and black gram flour or whole wheat flour are combined to make a dough.
- A person's body constitution (*Dosha*) condition is taken into consideration when choosing medicinal oil or plants for infusion.

- The individual must lay face down on the *Droni* Massage Table.
- The lumbosacral region of the spine is covered by a four to five-inch-diameter ring formed of dough.
- Warm medicinal oil or herbal concoction is gradually poured into it after it has been attached with water to make it leakproof. Once it cools down, this is removed and swapped out by one that is warmer.
- At the end of the procedure the dough is removed; a gentle massage is given over the area. The person is made to rest for a while.

Duration of the treatment: 30-45 minutes

AFTER TREATMENT CARE

- Leave the oil on for at least 1 hour.
- Try to avoid heavy lifting and excessive exercise for 24 hours
- Try to avoid *Diwashayan* (Day sleeping) and *Ratri jagaran* (Late night sleeping).
- Travelling long distances should be avoided.
- Follow the therapist's home recommendations.

BENEFITS

- Pacifies *Vata Dosha*.
- Reduces pain and inflammation.
- Deeply purifies and improves blood circulation around the lumbosacral area.
- Removes rigidity and spasm of muscles around the lumbosacral region.
- Nourishes and strengthens the bones, connective tissues, ligaments, nerves, and muscles of the lumbosacral region.
- Lubricates the joints.

INDICATION

- Chronic Backache
- Degenerative spine changes
- Compressed discs and spinal nerves
- Disc Prolapse
- Osteoporosis
- Osteoarthritis of the hip
- Rheumatic arthritis
- Sciatica

ROLE OF *KATI BASTI* IN (*GRIDHRASI*) SCIATICA:

Sciatica, also known as *Gridhrasi*, is a painful and incapacitating illness that requires an active treatment plan. *Vata Prakopa* and *Dhatu Kshaya* are inescapable factors, and every *Gridhrasi* etiology clearly shows the involvement of *Asthi*, *Sandhi*, and *Upadhatus*. In *Abhigata*, this effect happens instantly, but in *Aharaja Nidana*, it could take longer. The management line includes *Siravyadha*, *Agnikarma*, and *Basti Chikitsa*. *Snehana* and *Swedana Chikitsa* are also suggested as treatments and are important in *Vata shaman* since *Vata* involvement shows up as pain and disability with or without *Kapha*. Thus, it makes sense to treat sciatica with the *Katibasti* method.

Kati Basti is an external therapy applied to the spine that counteracts the *Khara* (roughness) and *Ruksha* (dryness) *Gunas* of *Vata*, hence helping to decrease the symptoms of *Gridhrasi*. *Snehayukta sweda*, *Sagni*, *Ekanga*, *Snigdha*, *Madhyama*, *Drawa*, and *Samshamaniya bahiparimarjana chikitsa* are all forms of *Kati basti*. To relieve *Stambha*, *Gaurava*, and *Sheeta* and to decrease the intensity of pain, the combination of *Snehana* and *Swedana* works synchronously. One such technique is *Kati basti*, which offers quick relief from symptomatology from a *Shamana* perspective. Various drugs are also available that lessen the intensity of pain and enhance functional ability, both of which are crucial in *Gridhrasi*.

It is a *Bahirparimarjan Chikitsa* that relieves *Sthanik Vata* and provides power to the *Kati* (Spinal) area, which is where the disease occurs (lumbosacral region).

MODE OF ACTION OF *KATI BASTI*: -

The right procedure location, base oil, medication used, length of oil contact with the application area, quantity of oil used, procedure duration, and oil application temperature all affect the mode of action. Regardless of the delivery method, the medication needs to reach the right concentration in the right place. Precise penetration is necessary for this purpose. The illnesses for which *Katibasti* is recommended are typically classified as superficial or profound in *Katipradesh*. The treatment's effects ought to extend to the pathogenesis. Pharmacokinetics and Acharya Sushruta's "*Tirayak dhamani*" *Sharir* help us understand why *katibasti* works so well.

1. Absorption through *Twacha* via *Romakupa*
2. Vasodilatation
3. Dhamani involved in “*Poshana*” i.e. (nutrition)
4. Temperature alteration acts on nerve endings.

Whatever oil is used for *Katibasti*, sesame oil is the base oil because it is easily absorbed and penetrates deeper tissues. According to *Acharya Sushruta*, *Romakupa* (hair follicles) are attached to the *Tiryak Dhamani* (oblique arteries and subcutaneous arteries). Topical medications or applications can lead to neuronal stimulation. When *Katibasti* is applied to a pathogenic area, it also reduces pain; this action may be via neuronal stimulation. A longer *Katibasti* session—roughly 30 to 45 minutes—causes prolonged hot fomentation, which leads to the secretion of acetyl choline. Warming has a sedative effect through sensory nerve endings and encourages vasodilation, which in turn reduces muscle spasms associated with tonic muscle contraction.

Vasodilation is brought on by hot fomentation and oil absorption through the dermis, which improves blood flow and nutrient delivery to the tissue. *Dhamani* can be described as both an artery and a nerve. *Dhamani*, which has a pulsating quality, indicates that it is an artery. So, we can say that *Dhamani* is a type of nerve. Action on Nerves: - Hot fomentation acts as a stimulant for less than 5 minutes and also act as a sedative. During fomentation, WBC activity increases, and long duration of fomentation causes secretion of acetylcholine. Efficacy of fomentation was noted in psychosomatic pain also.

Increased temperature \implies Increased Antibacterial activity \implies Increase internal temperature \implies Increase in metabolic activity \implies Increase in repairing of cells.

Vasodilation: - Hot fomentation results in vascular dilatation and hyperemia. Short-term fomentation has been demonstrated to be effective in treating inflammation in experiments. Internal organ congestion is reduced and capillary pressure rises as a result of fomentation. Sweating relaxes the tissue and cleanses it of pollutants. Pain and spasms lessen as a result of this. Transport from increased peripheral circulation helps minimize oedema, which in turn helps to reduce inflammation. reduces discomfort and promotes quick healing.

Increased sweat \implies increases elimination of toxins and waste product \implies tissue relaxation \implies decrease spasm and pain.

1. External heated fomentation with oil causes the receptor in nerve terminals to become irritated, which results in the immersion of new biological substances and an increase in nutrition and metabolism.
2. The action of these biochemical compounds on subcutaneous and skin-area arteries results in the production of adrenaline or histamine.
3. Inflammatory cytokines, which are proteins, are less active when massaged (*Mridu Samvahanam*), which lessens pain and inflammation.

BENEFITS OF *KATI BASTI* TREATMENT: -

According to Ayurveda, *Kati Basti* is believed to have several benefits for the lower back and the lumbar and sacral regions of the spine. Some of the potential benefits of *Kati Basti* include:

- ✓ Pain reduction: It is believed that the warm medicinal oil used in *Kati Basti* can help lessen lower back pain and inflammation.
- ✓ Enhancing function: It is thought that *Kati Basti* can help increase lower back range of motion and flexibility, which can enhance general function and lessen handicaps.
- ✓ Treating particular conditions: Sciatica, lumbar spondylosis, lumbar disc herniation, and lower back pain are among the disorders that *Kati Basti* is used to treat.
- ✓ Relaxing the muscles and joints: It is thought that the massage that comes after the *Kati Basti* treatment would assist in releasing the lower back's tense and stiff muscles and joints.
- ✓ Increasing circulation: It is believed that applying warm oil to the injured area will help blood flow more freely, which will aid in healing and lessen discomfort.

OTHER DIFFERENT *BASTI* IN THE MANAGEMENT OF *GRIDHRASI*: -

Since *Gridhrasi* is a *Vata* disorder with a seat in the waist and back, its origins can be traced back to *Pakwashaya* (the large intestine). Because of the way *Basti* affects the *Vata Dosha*, it may be the ideal way to administer medication.

- ❖ *Niruha Basti*: It is a decoction enema used in *Kapha-Vataja* and *Kaphavritta Vata* conditions. *Erandmooladi Basti* is indicated for pain and stiffness caused by *Vata-Kapha* in the lower back, waist, hip, and leg region. It contains 34

- drugs, including *Madhu*, *Saindhava lavana*, *Til tail*, paste of *Vata-kapha* alleviating herbs, decoction drugs, and cow's urine. The main ingredient, *Eranda* (*Ricinus communis*), is considered the best *Vata* alleviator by *Acharya Charaka*. It also has anti-inflammatory, analgesic, anti-oxidant, and bone regeneration properties.
- ❖ *Vaitaran Basti*: It is a decoction enema used in *Aamvata*, *Shula*, and *Anaha*, with *Guda* (jaggery) replacing honey, *Chincha* (tamarind) as paste, and cow urine as the decoction. It is indicated in *Stambha*, *Kati-Ansha-Pristha shotha*, *Shula*, *Gridhrasi*, *Janu Sankocha*, *Urustambha*, *Klaibya*, and *Vishama Jwara*. It is the best for managing *Asthi pradoshaja vikara*. It contains *Guduchi*, *Nimba*, *Vasa*, *Kantakari*, *Patola*, *Ksheera* (milk), *Goghrita* (ghee), *Madhu* (honey), and *Saindhava* (salt). *Basti* is beneficial for disorders due to its beneficial effects on *Asthigata Vata* and *Tikta rasa* drugs. It reduces inflammation around the nerve and promotes healthy bone tissue formation. Clinical studies have found it useful in relieving pain, tenderness, stiffness, and increasing the range of motion.
 - ❖ *Erand-muladi Yapana Basti*: *Acharya Charaka's Erand-muladi Yapana Basti* is a medicinal remedy containing decoction drugs, *Kalka* drugs, sesame oil, rock salt, honey, and cow's milk. It is primarily a hot potent *Vata-Kapha* pacifier. Clinically, it can cause back stiffness, back pain, tenderness, sciatic pain, and difficulty in movements. It is also known for its tingling sensation in feet.
 - ❖ *Anuvasana/Matra basti*: It is an oil enema used in treating pure *Vata* conditions. It contains *Sahacharadi Tail*, a hot potent *Kapha-Vata* pacifier with pain-relieving and anti-inflammatory properties. The oil contains *Sahachara*, *Devdaru*, *Nagara*, and *Til Tail*, which help relieve pain and inflammation of the sciatic nerve. The use of this oil in *Matra Basti* reduces pain, stiffness, pricking sensation, and lumbar movement.
 - ❖ *Prasarini Tail Anuvasana Basti*: containing *Erand tail* and *Gandhaprasarini*, is indicated for *Amavata* disease, alleviating *Vata-Kapha* and pain, and providing relief for symptoms like anorexia, stiffness, twitching, and lethargy.
 - ❖ *Dhanvantar Taila Anuvasana Basti*: It is an oil used in *Sahastrayoga Taila Prakarana* for treating various *Yoni Roga* and *Vata* disorders. It contains various ingredients like *Dashamoola*, *Ashtavarga*, *Bala*, *Yava*, *Kola*, *Kulthi*, *Devadaru*, *Rakta Chandan*, *Sariva*, *Tagar*, *Shaileya*, *Agaru*, *Vacha*, *Punarnava*, *Shatavari*, *Triphala*, *Ela*, *Dalchini*, *Tejpatra*, cow milk, and sesame oil. *Dhanvantar Kashaya* has been found to have chondroprotective action, inhibiting hyaluronidase and collagenase type 2 activities in degenerative bone and joint disorders. It can be used in *Vataja Gridhrasi* to treat conditions with cell damage and degeneration, such as sciatica.
 - ❖ *Bala Taila Anuvasana Basti*: *Bala Taila* is a medicinal oil described by *Acharya Vagbhatta* in *Ashtanga Hrudayam* as the best destroyer of *Vataja* diseases. It contains *Bala*, *Chhinnaruha*, *Rasna*, Goat milk, *Mastu*, *Ikshurasa*, *Shukta*, and 46 other drugs. *Bala* has anti-peroxidative and anti-inflammatory effects on neurotoxicity, while *Chhinnaruha* has anti-inflammatory effects. The combined effect of *Bala Taila Basti* results in neuroprotective, regenerative, and anti-inflammatory effects on disorders like Sciatica.

CONCLUSION

Gridhrasi is a type of *Vatavyadhi* consisting of pain originating from *Sphik* (Waist) up to *Pada* (Each Legs). In Contemporary science, *Gridhrasi* is Known to be Sciatica which refers to pain that travels along the path of the Sciatic nerve. A detailed study of *Nidana*, *Lakshana*, and *Chikitsa* in Ayurveda is needed to spread awareness among common people about the disease by correcting their *Ahar-vihar* and taking proper preventive and curative measures like medicine and therapy. *Kati Basti* is an external therapy applied to the spine to helping to decrease the symptoms of *Gridhrasi*. The current scientific approach to treating Sciatica is ineffective; it involves the use of surgical procedures that often have unfavorable side effects and analgesics for pain relief. Sciatica or *Gridhrasi* is treated using a range of various techniques found in Ayurveda. *Kati Basti* is a unique treatment method because due to its easy, non-intrusive, and successful methodology.

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