

PRACTICAL APPROACH OF VERTEBRAL-COLUMN DISORDERS WITH PANCHAKARMA TREATMENTS

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ABSTRACT

Vertebral Column is base of our body. Vertebral Column provides flexibility of motion , structural support and balance for upright posture . General Anatomy of VertebralColumn as well as disorders are indicated.At present era in modern life style is adopted by everyone .Due to this life style adaptation a lot of Vertebral Column disorders are also adopted. Ayurveda tell us about Goodconduct Life Style. Panchakarma treats Vertebral Column disorder.*Kati basti, Griva Basti, Abhyang, Svedan, PatraPottali Swed ,ShaliPindSwed ,Pizhichil, UpanahSveda* are Very effective in Vertebral Column disorders. In these process different types of medicated Vata-shamak oils,Vata shamak leaves and necessary material are used.

Key Points: Vertebral Column, *Panchakarma, Kati basti, Griva Basti, Abhyang, Svedan, Patra-Pottali Swed ,ShaliPindSwed,,Pizhichil, UpanahSveda*

INTRODUCTION

The spine is a very complex mechanical structure that is highly flexible. In the normal spine there is always some type of physical demand being placed on it. The primary functions of the spine include:

- Protecting the spinal cord, nerve roots, and internal organs
- Providing flexibility of motion
- Providing structural support
- Providing balance for upright posture

The spine bears the load of the head, shoulders, arms, and upper body.

Weight is distributed to the hips and legs. The spine attempts to keep the body's weight balanced evenly over the pelvis.

Spinal cord and nerve roots

The brain and spinal cord make up the central nervous system. It is located below the brain stem. The spinal cord functions as a sophisticated network that carries information from the outer elements of the body (skin, muscles, ligaments, joints) through the sensory tracts, to the central "computer," the brain. Data are processed there, and new information, such as muscle control, is sent out through the motor tracts of the cord.

The Lumbar Spine :The spine is made up of bones and shock absorbing discs that support the body and protect the spinal cord and nerves. Back pain is often caused by damage

to the lumbar spine. Spinal Cord and Nerve Roots

Curves of the spine :When viewed from the front or back, the normal spine is in a straight line, with each vertebra sitting directly on top of the other. When viewed from the side, the normal spine has three gradual curves:

- The neck has a lordosis; it curves toward the back
- The thoracic spine has a kyphosis; it curves toward the front
- The lumbar spine also has a lordosis

Vertebrae: Although the vertebrae have slightly different appearances as they range from the cervical spine to the lumbar spine, they all have the same basic structures.

The anterior arch is called the vertebral body. Discs connect one vertebral body to another to allow motion of the spine and cushion it.

Together, the vertebral bodies and discs bear about 80 percent of the load to the spine. The posterior arch consists of the pedicles, laminae, and processes.

The pedicles are two short cylinders of bone that extend from the vertebral body. If the spine becomes unstable, the pedicles may compress the nerve root, causing pain or numbness. Laminae are two flattened plates of bone that form the walls of the posterior arch.

Intervertebral discs :Located between each vertebra, intervertebral discs make up 1/4 of the height of the spinal column. The discs act as shock absorbers and allow movement. Movement at a single disc level is limited, but all of the vertebrae and discs combined allow for a significant range of motion.

Bone Changes

Conditions

Trauma and Injuries

Tumors

Bone changes :As a result of the natural wear and tear that occurs with aging, certain parts of the spine start to wear out. This process makes some of the anatomic structures of the spine, bones, intervertebral discs, ligaments, and muscles less flexible and less resistant to injury.

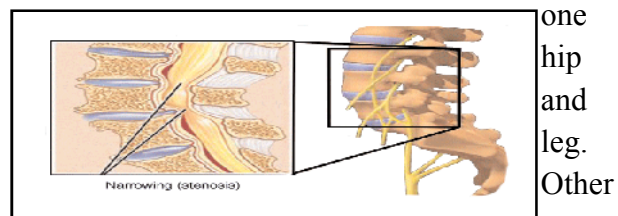
Common spinal problems A disc can protrude (herniated) and press on a nerve. Vertebrae can also develop bone spurs, which can narrow the spinal canal (stenosis).

Regions of the spine:

There are 33 vertebrae in the spine. Anatomically, the spine is divided into four regions:

- Top seven vertebrae (C1-C7) that form the neck are the cervical spine
- Upper back, or thoracic spine, has 12 vertebrae, labeled T1-T12
- Lower back, or lumbar spine has five vertebrae, labeled L1-L5
- Sacrum and coccyx (tailbone) are nine fused vertebrae forming a solid bone labeled S1

Herniated disc :The intervertebral discs are composed of a soft gel-like center, and a tough outer lining that surrounds the disc. The intervertebral disc creates a joint between the vertebral bodies that allows them to flex, extend, rotate, and move with each other. When the outer lining that surrounds the disc tears, the soft center squeezes out through the opening, creating a "herniated", "slipped", or "ruptured disc". This can compress nerves leading to pain that starts in your hip or buttocks and extends down your leg. The pain is worse when you're sitting and generally affects only



symptoms may include:

- Minor or severe pain
- Numbness in the leg or foot
- Tingling in the leg or foot
- Weakness in the leg or foot

What is stenosis?

Spinal stenosis describes a narrowing of various parts of the body. Cervical stenosis is a degenerative disease where the spinal canal and neural foramina narrow and compress the spinal cord and nerve roots. This disorder is most common in people over 50; however, genetics and congenital factors may predispose a person for Spinal Stenosis

Symptoms can vary a great deal. There may be no symptoms at all since narrowing of the channels in the vertebrae does not always compress the spinal cord or nerve

Cervical spinal stenosis :This can cause pain in the neck and shoulders and may be occasional or chronic ranging from mild to severe including:

- Radiating down your arm or hand
- Causing headaches, numbness, or muscle weakness
- Affecting the nerves that control your balance
- Clumsiness or a tendency to fall
- Partial or complete incontinence

Lumbar spinal stenosis

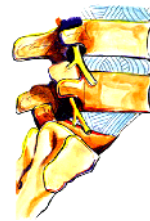
Lumbar stenosis causes pain or cramping in your legs when you stand for long periods of time or when you walk. The discomfort usually eases if you bend forward or sit down, but comes back when you stand upright. Lumbar laminectomy, hemilaminectomy and X-Stop laminoplasty are treatment options.

Degenerative disc disease :Degenerative disc disease (DDD) is part of the natural process of aging. As we age, our intervertebral discs lose their flexibility, elasticity, and shock absorbing characteristics. The ligaments that surround the disc become brittle and they are

easily torn. At the same time, the gel-like center of the disc starts to dry out and shrink. Not everyone who has degenerative changes has pain. Every patient is different, and it is important to realize that not everyone develops symptoms as a result of DDD.

What is spondylosis

Cervical spondylosis is a disorder that narrows the spinal canal in the neck compressing the spinal cord or spinal nerve roots. It's a fracture or defect in a portion of the bone between the back joints, allowing one vertebral body to slide forward on the next. It often affects middle-aged and older adults who have degenerative discs and vertebrae in their neck



.When a spondylolysis is present, the back part of the vertebra and the facet joints simply are not connected to the body, except by soft tissue.

Treatment options include decompressive lumbar and fusion with pedicle screws and TLIF.

Sciatica the Sciatic Nerve

Sciatica is a condition caused by compression or trauma of the sciatic nerve and common during pregnancy. Sciatica is made worse when you cough or if someone lifts your leg up while you are laying down. Symptoms may begin abruptly or gradually, are usually irritated by movement, and worsen at night.

what is scoliosis

Scoliosis however causes abnormal curves in the spine. The curves often look like the letter "S" or "C," and they primarily affect the thoracic or lumbar regions. Most of the time, scoliosis has little impact on a person's ap-

pearance or well-being. Occasionally, scoliosis can cause large abnormal curves that are clearly visible to the eye. Such pronounced curves can cause pain, and in rare cases affect lung and heart function. Scoliosis usually develops during childhood, but it sometimes affects adults as well.

back pain: trauma

It is impossible to predict how badly someone's spine has been injured before a doctor has evaluated them. Therefore, everyone who is involved in an accident that could have damaged their back is treated as if they do have a spinal injury.

Most people are familiar with the backboards that paramedics use to transport accident victims. Cervical collars are placed on all accident victims, they are secured on a backboard, and then taken to a hospital for further evaluation.

sprains and strains

Most acute pain in the back results from sustaining a mild strain. Sprains and strains in your lower back usually happen during a sudden and stressful injury, causing stretching or tearing of the muscles, tendons, or ligaments. If you have this condition you may also suffer from painful muscle spasms, which can occur during your daily activities or at night while you're sleeping. The pain is usually limited to five or ten days. **spinal cord injuries**

A spinal cord injury occurs when the cord itself is crushed, stretched, or torn. Unfortunately, this is still an injury that can not be reversed or cured. These injuries can incredibly devastating to the patient and their families. A lot of research is being done on how to care for someone immediately after they have had a spinal cord injury, and also what kind of rehabilitation is best for them.

neck pain: trauma

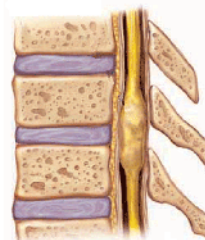
Cervical spine injuries occur during motor vehicle accidents, in rough contact sports, after a fall, or by hitting your head against a hard surface, such as when diving into a pool that is too shallow. These accidents can cause a range of injuries from mild cases of whiplash to paralysis in parts of the body. Whiplash is a hyperextension injury to the neck. Though the neck is a very flexible structure, it can be injured when the weight of the head exceeds the neck's ability to control its motion. A jerking motion can cause over-stretching and tearing of the neck muscles and ligaments and can cause the discs between the neck vertebrae to bulge, tear, or rupture.

fractures and dislocations

Cervical spine fractures and dislocations are serious injuries because there is the

potential for damage to the spinal cord if the patient is not taken care of cautiously. They need early medical attention in order to produce a painless, stable neck and prevent pressure on the spinal cord and/or nerves. When the neck is injured in very violent accidents, the bones in the neck can be broken or pulled forcefully out of alignment.

What are spinal tumors



Most primary tumors are caused by out-of-control growth of cells in the spinal column or neural tissues. Spinal tumors that are the result of cancer spreading from other

parts of the body are called secondary or me-

tastatic tumors. All secondary tumors are malignant because they originated from cancerous tumors elsewhere in the body.

Spinal tumors are also classified by the part of the spine where they are located. These classifications are called cervical, thoracic, lumbar and sacrum. A spinal tumor may be within the spinal canal or next to the spinal canal.

symptoms of tumors : The principal symptom of a spinal tumor is non-mechanical back pain, which is a constant pain that does not improve with rest or lying down. Mechanical back pain due to muscle strains or disc injury usually worsens with activities such as sitting, bending, and walking and gets better with rest or lying down.

Other symptoms include Sciatica, Numbness,

formity, Difficulty with incontinence, Fever, Symptoms of spinal tumors generally develop slowly and worsen over time unless they are treated.

Diagnostic Tests

To confirm your diagnosis and locate the source of your pain, your doctor may order certain tests.

1. X-rays show the vertebrae.
2. Myelograms help to evaluate the subarachnoid space of the lumbar spine.
3. CTs, which locate bleeding,
4. MRIs, and EMGs may be taken to assist in diagnosis.
5. An EMG shows muscle or nerve damage.

PANCHAKARMA-TREATMENT



KATI BASTI

The procedure of applying heat to the sacral or lumbar region by retaining warm medicated oil with in a specially formed frame on this area is popularly known by the name *Kati Basti*. The term basti here is a misnomer. Basti generally refers to the administration of the medicine through the rectal route by using the

specially designed basti instrument. But the kati basti does not involve any such procedure rather than this is a localized form of svedana procedure. As warm oil is used to apply heat, this is considered as a variety of snigdha sveda.



GRIVA BASTI

Griva Basti quite similar to the kati basti the procedure of applying heat to the cervical region by retaining warm medicated oil with in

a specially formed frame on this area is known by the name Griva Bast



The nose is the doorway to the brain, mind and consciousness. Prana, or life-force energy, enters our bodies through the breath so it is vital that the nostrils are free from blockages, well lubricated and in a healthy condition. The Nasya treatment aids the lubrication and cleansing of the nostrils and stimulates other benefits throughout the whole of the neck and head. Nasal is the nasal ad-

ministration of medicinal herbs and oils for the purpose for treating a whole range of ailments from the neck up. Nasya is very much effective in cervical spondylitis Different oils are used to treat differing symptoms or ailments. Nasya oil is infused with special herbs that both nourish and lubricate the sinus cavities



Pizhichil is a special form of Ayurvedic treatment that combines rich oil massage with a special heat treatment. During this indulgent treatment 5 liters of medicated and warmed Ayurvedic oil is continuously poured over the body while two practitioners rub and stimulate the skin using hands and special cotton cloths. The process is performed with the per-

son both lying down and while sitting in a chair specially designed for the purpose of applying medicated oils. This is a highly rejuvenating treatment that enhances muscular tone and retunes the entire nervous system. It comes as a package in itself – a course of 14-21 days is necessary to gain its maximum healing potential.



Abhyanga is an integral part of the daily routine recommended by Ayurvedic doctors in order to promote overall health and well-being. The prefix “Abhi” means “into or towards” and “ang” has a root meaning of “movement”. So “Abhyanga” means to move energy into the body whilst moving toxins towards the body’s eliminatory systems.

This is a gentle but firm warm oil massage during which 2 practitioners work in synchronized harmony to activate and gently awake the entire body. Special herb-infused Ayurvedic oils are slowly warmed up and gently massaged into the skin. Oils are sterile before use and are chosen according to the clients’ prakruti (psychosomatic constitution or dosha)



Oil & Decoction enemas are a central part of Ayurveda, in fact there are over 100 specific oil enemas listed in the ancient medical texts. Specially selected and prepared oils are gently inserted into the rectum and allowed to absorb over time. Ideally the oil should be kept in for several hours, preferably over night. The oils find their way through the colon and absorb all sorts of oxidants and toxins along the way.

Basti is especially good for excessive Vata imbalances. Far more gentle than colonic irrigation, oil enemas offer an effective and gentle alternative way to cleanse and detox the colon. Since Vata is mainly located in the colon and bones, the medication is administered rectally. There are about 80 Vata related disorders in Ayurveda. About 80 percent of them can be treated with medicated enemas



The treatments found in Ayurveda date back thousands of years and Svedana is no exception. In this treatment you sit for 30 minutes in a herb-infused steam box. The use of heat and steam to encourage sweating has long been recognized as a natural and effective way to encourage the process of detoxification.

The special herbs help to stimulate oxygen flow throughout the body, while the steam activates the natural sweating process, which is essential for releasing accumulated toxins. Your skin will carry the gentle sweet aroma of the herbs throughout the following 24 hours or so.



Pindasveda is a highly effective rejuvenation treatment designed to revitalize the entire body. A special type of rice that is cooked, tied into a cotton ball, dipped into a herbal mixture with warmed milk and then skillfully

massaged into the body by two therapists simultaneously. The entire body is covered and the healing properties of the herbs are easily absorbed and utilized through the skin.



Patrapinda Sveda (Elakizhi) is an innovative classical massage with medicated leaves. Each of these combinations give a curative and rejuvenative effect after being undergone for definite periods and repeating at definite intervals. Herbal poultices (bundles) are pre-

pared with various herbs and medicated powders. The poultices are warmed in medicated oils and used to massage the entire body, neck, shoulders, hand and back, shifting the person from side to side.



Upanaha Sveda or Poultice is a Purvakarma in Panchakarma therapy in Ayurveda. It is the local application of medicated paste to cure pain and swelling. In this treatment herbal

medical mixture is applied hot over the affected part of the body and is allowed to remain there for over twelve hours.



Involves fomentation of the body with a bolus of cooked rice. Shastika or particular kind of rice known for its nutritional value, is cooked in milk and a herbal decoction made of bala (*Sida rhombifolia*). Four boluses are made of this cooked rice and tied up in linen bags. The fomentation begins with the patients.

The fomentation continues with the patient sitting upright on the droni with legs outstretched. The masseurs on either side perform the fomentation process in an identical manner. The movement of the hands during both fomentation and massage should always be downwards, on his/her back on the droni. There is also another attendant who supplies new kizhis, which are kept ready in a decoction of warm milk. It is very important to keep the kizhis at a constant temperature. The treatment is over once fomentation has been carried out in all the seven standard positions.

In some cases, one of the three supine position may be avoided and the patient is made to lie face down. After the specified duration of treatment, the paste is wiped off with palm leaf scrapers, a suitable type of oil is applied all over the body before the bath.

DISCUSSION:

Vertebral column help in protecting the spinal cord, nerve roots, and internal organs as well as balance for upright posture. The brain and spinal cord make up the central nervous

system. The neck has a lordosis; it curves toward the back. The thoracic spine has a kyphosis; it curves toward the front. The lumbar spine also has a lordosis. Intervertebral discs make up 1/4 of the height of the spinal column. The discs act as shock absorbers and allow movement. The intervertebral discs are composed of a soft gel-like center, and a tough outer lining that surrounds the disc. When the outer lining that surrounds the disc tears, the soft center squeezes out through the opening, creating a "herniated", "slipped", or "ruptured disc". Spinal stenosis describes a narrowing of various parts of the body. Lumbar stenosis causes pain or cramping in your legs when you stand for long periods of time or when you walk. Degenerative disc disease is part of the natural process of aging. Cervical spondylolysis is a disorder that narrows the spinal canal in the neck compressing the spinal cord or spinal nerve roots. Sciatica is a condition caused by compression or trauma of the sciatic nerve and common during pregnancy. Scoliosis however causes abnormal curves in the spine. The curves often look like the letter "S" or "C." Most acute pain in the back results from sustaining a mild strain. Sprains and strains in your lower back usually happen during a sudden and stressful injury, causing stretching or tearing of the muscles, tendons, or ligaments.

CONCLUSION:

At present era in modern life style is adopted by everyone .Due to this life style adaptation a lot of Vertebral Column disorders are also adopted like herniated disc, lumber spodylosis, cervical spodylitis, canal stenosis, degenerative disorders, scoliosis, sprain, strain, tumor & trauma etc, . Ayurveda tell us about Good conduct Life Style. Panchakarma treats Vertebral Column disorder. *Kati basti, Griva Basti, Abhyang, Svedan, PatraPottali Swed, ShaliPindSwed, Pizhichil, Upanah Sweda* are used in Vertebral Column disorders. Theses procedures are preventive as well as curative treatments in such vertebral coloum disorders.

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