

**YOGASANAS- A NON-INVASIVE ALLIED APPROACH IN MANAGEMENT OF CERVICAL SPONDYLOSIS**

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**Abstract**

Background-Cervical Spondylosis is the degenerative disorder arises due to wear and tear of vertebrae and discs of neck. Only Conservative management has not been found to be adequate. So in order to avoid the surgery and to treat the patients from the non invasive techniques, here in this study Yogasanas has been included and its effects are observed. Symptomatic cervical spondylosis most commonly presents as neck pain. In the general population, the point prevalence of neck pain ranges from 0.4% to 41.5%, the 1-year incidence ranges from 4.8% to 79.5%, and lifetime prevalence may be as high as 86.8%. According to the Global Burden of Disease 2015, low back and neck pain remain the leading cause of years lived with disability (YLD) and the fourth leading cause of disability-adjusted life years (DALYs). Yogasanas are ancient non invasive technique to improve the prognosis of diseases and also betterment of quality of life of the sufferer.

Aim- To visualize the effects of Yogasanas as non invasive technique in management of Cervical Spondylosis.

Results- There were 50 patients of Cervical spondylosis taken for the study and those were divided randomly in 2 groups. One group was control group wherein patient were on Conservative treatment. Other group was instructed to perform *Yogasanas* along with the

conservative treatment. It was observed that Trial group patient responded much better and earlier to the treatment as compared to Control group.

Conclusion- It was observed that Yogasanas as part of regime helps to prevent Cervical spondylosis and It also acts as fantastic adjuvant therapy along with the conservative medicine in management and improving the prognosis of Cervical Spondylosis.

Keywords: Yogasanas, Cervical spondylosis, Pain, stress.

### **Introduction**

Cervical Spondylosis is a chronic degenerative disease of Neck region. It is disease of major concern due to its abundance in urban as well as rural population and equally in both genders. It is associated with Chronic Neck pain due to degenerative changes in spine. Cervical Spondylosis is a degenerative arthritis, OA of vertebrae. It is the degenerative disorder arises due to wear and tear of vertebrae and discs of neck. Only Conservative management has not been found to be adequate. So in order to avoid the surgery and to treat the patients from the non invasive techniques, here in this study Yogasanas has been included and its effects are observed. Symptomatic cervical spondylosis most commonly presents as neck pain. In the general population, the point prevalence of neck pain ranges from 0.4% to 41.5%, the 1-year incidence ranges from 4.8% to 79.5%, and lifetime prevalence may be as high as 86.8%. According to the Global Burden of Disease 2015, low back and neck pain remain the leading cause of years lived with disability (YLD) and the fourth leading cause of disability-adjusted life years (DALYs). Yogasanas are ancient non invasive technique to improve the prognosis of diseases and also betterment of quality of life of the sufferer. Ayurveda mentions cervical region under the name Manya Pradesh and according to the symptoms various terminologies have been coined. Ayurvedic texts also quotes about the systemic degeneration of the body – “*Shiryate tat Shariram*”. When the space between the 2 vertebrae decreases then it leads to compression of nerve root emerging from the particular spinal cord leading to Radiculopathy. Direct pressure on spinal cord may result in weakness, gait dysfunction, Loss of balance. Patient may suffer with Tingling numbness and weakness in arms and hands because of nerve compression and lack of blood flow.

### **Etiology**

The primary risk factor and contributor to the incidence of cervical spondylosis is age-related degeneration of the intervertebral disc and cervical spinal elements. Degenerative changes in surrounding structures, including the uncovertebral joints, facets joints, posterior longitudinal ligament (PLL), and ligamentum flavum all combine to cause narrowing of the spinal canal and intervertebral foramina. Consequently, the spinal cord, spinal vasculature, and nerve roots can be compressed, resulting in the three clinical syndromes in which cervical spondylosis presents: axial neck pain, cervical myelopathy, and cervical radiculopathy.

Factors that can contribute to an accelerated disease process and early-onset cervical spondylosis include exposure to significant spinal trauma, a congenitally narrow vertebral

canal, dystonic cerebral palsy affecting cervical musculature, and specific athletic activities like rugby, soccer etc.

### **Pathophysiology**

Cervical Spondylosis arise from Chronic degeneration of Cervical spine and aligned tissues. It is due to the over activity of osteoclasts as compared to that of Osteoblast due to the various reasons which includes Sedentary lifestyle , excessive use of Gadgets (Computer/Mobile phones), improper use of Pillows and Improper postures, sudden jerks. These all factors leads to wear and tear of Muscles, Joints, discs of vertebrae and eventually leads to neck pain. Many times there is formation of ‘Spur’ excessive or improper bone growth due to action of Osteophytes.

This degeneration of tissues leads to compression of nerve roots. This can lead to increasing pain in neck and arm and changes in sensation. In due course of time it involves spinal cord which eventually effects lower limbs as well.

### **Symptoms**

- Radiating pain from neck to Arms and Shoulders (*Manyashool Sanchari vedna*)
- Loss of Sensation or Tingling numbness all over the limbs (*Hastapada Chimchimayan*)
- Weakness of limbs (*Hastapada kriya haani*)
- Neck stiffness that worsens with time (*Manyagraha/Manyastambh*)
- Loss of Bladder tone leading to Urinary incontinence (*Indriya daurbalya*)

### **Diagnosis**

- Neck flexibility assessment. Cervical Spondylosis limits the range of movements hence patients are assessed on the basis of their neck movements. They were asked to perform Flexion, Extension, Lateral rotation of neck and accordingly assessments were made.
- Neurological examination in order to find out any of the spinal nerves involved (Compressed).
- Neck or Spinal X rays in order to observe the bone deformities or spur.
- CT Scan
- MRI
- Myelogram

### **Observations**

The study was carried out on 50 patients of Cervical Spondylosis. They were divided randomly in two groups i.e Control Group and Trial Group. Each group has 25 patients. In control group the patients were given only the conservative treatment and patients of Trial group were instructed *Yogasanas* along with the conservative treatment. In practical scenario none of the patients taken for the study had 0 patients with the symptom of Urinary incontinence.

Maximum patients were with the Symptoms of **Stiffness and Pain** and thus observations were carried out.

The parameter for pain was measured before and after the treatment by Visual Analogue scale (VAS).

Stiffness was assessed on the basis of Neck movements. Restricted movements along with the pain were chosen.

Master chart Control Group (Pain)-

Symptom	Day 0	Day7	Day14	Day 21	Day 28
Raditing pain from neck to arms	7	7	5	5	5

Master chart Control Group (Stifness)-

Symptom	Day 0	Day7	Day14	Day 21	Day 28
Raditing pain from neck to arms	7	7	5	5	5

Master chart Trial Group-

Symptom	Day 0	Day7	Day14	Day 21	Day 28
Raditing pain from neck to arms	7	6	4	2	1

On comparing the outcome from the charts it is clearly seen that *Yogasanas* along with the conservative treatment has more effect in minimizing the pain.

Factors leading to bad prognosis

**Ageing-** Cervical spondylosis is a wear and tear of tissues and it is worse as the person ages. Cervical discs shrunk and dehydrate with the age. Ayurved clearly explains about this concept by its *tridosha* theory wherein it states that as the person ages there is predominance of *Vata dosha* in the body. *Vata dosha* possess the property of dryness so increase in *Vata* leads to eventual dryness and shrinkage of tissues. *Vata dosha* gets vitiated in in Old age and is also responsible for the degeneration of body. As per the concept “*Shoolam nasti vina vatata*” which infers that no pain in the body can occur without the vitiation of *Vata*.

**Occupation-** There are certain occupations which create extra stress on neck like those who invest maximum time on laptops and PC. They tend to be in same position for quite a long time as a result there is tissue buldge and degeneration which is followed by stiffness and pain. People who carry very heavy load on head also tends to suffer from Cervical spondylosis.

**Neck Injuries-** Previous neck injuries appears to increase the risk of neck Injuries as there is lacunae in the tissues.

**Genetic** - Some families have more of these changes over time, while other families will develop less.

Smoking

Management-

There are many methods to manage Cervical Spondylosis in all sorts of Medical sciences such as non invasive and Surgical techniques. However, here as per the topic more Emphasis will be laid on *Yogasanas*.

Yoga- An allied science of Ayurved with same aim of attaining *Moksha* with healthy body and Mind. *Yoga* was mentioned by *Acharya Patanjali* where he laid down the 8 fold paths of *Yoga* in order to attain *Moksha*.

The 8 fold paths of *Yoga* are-

- *Yama*
- *Niyam*
- *Asana*
- *Pranayam*
- *Pratyahar*
- *Dharna*
- *Dhyan*
- *Samadhi*

Here we studied the third step of *Yoga* i.e *Asana*. *Asana* has been defined as “*Sthiram sukham Asana*” which means any position in which a person can reside for a long is known as *Asana*. These in modern era are categorized under various movements and exercises confined to strengthen that particular area.

The *Yogasanas* which are extensively used for Management of Cervical spondylosis are-

- *Tadasana*
- *Urdhwahastottanasan*
- *Ardhrachakrasana*
- *Makarasana*
- *Sarpasana*
- *Bhujangasana*
- *Vajrasana*
- *Gomukhasana*

### **Observation-**

Many patients were given *Yogasnas* along with the conservative treatment. Two groups were made and it was observed that patients who performed prescribed *Yogasanas* had relief from the symptoms earlier than those who didn't.

It was also observed that patients who had *Asanas* as part of their regime were having less symptoms and less in severity.

### **Conclusion**

*Yoga* in addition to life and treatment provides less chances of developing the disease and also prevent complications. However, it shall be considered that *Yoga* is not one day magic remedy, the *asanas* need proper practice and consistency. So in order to get maximum results, the

*asanas* shall be performed from childhood itself. It is not “The only solution”. It is an aligned approach (non invasive) along with medicine.

Before commencing the *Yoga*, the body structure, medical history, genders, menstrual history has to be taken into consideration.

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