



A Review On Cervical Spondylosis And Its Management By Physical Therapy And Yoga

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Abstract

Cervical spondylosis is a condition that is responsible for neck pain and discomfort to wide range of people from teenager to old age. Early it was considered that it mainly affect the middle age peoples but now due to change in lifestyles and use of electronic devices in education sector and professional sector has increased person suffering from it . There are various ways by which it can be treated and managed so in this article we have reviewed various ways of physical therapy and six types of yoga asana for its management.

Key words: Cervical Spondylosis, Physical therapy, Yoga, Neck pain and lifestyle

Introduction

Cervical spondylosis was generally develops as a result of degenerative changes in the neck (cervical vertebrae). Various reason noted for occurrence of this disorders are faulty body posture, number of working hours / day on computers , demands of the job, work station design, task complexity Cervical spondylosis was considered as age related disorder affecting both men and women. Early geriatric population was the one that was mostly affected but now a days due to certain lifestyle disorder it has been found that younger population is the one that suffers from it more as compared to other populations.

Alexander et al .,2004, in a study on 1500 college students have found that 27.33% of college students were suffering from cervical spondylosis and the main reason quoted by him for this finding were the abnormal body posture and use of computers in education. These results were similar to the result obtained by Straker et al., 2011 and Glassemi Brouman et al., 2008 in their respective studies.

Cervical spondylosis causes and risk factors

Researchers have proved that there is no specific reason for developing cervical spondylosis but there certain reasons or risk factors that contribute to it.(Irvine D.H et al.,1965,Asher A.,2010 and Bhasin RR.,2007) . The major causes are listed below

1. High pillow- Many people have habit of using thick or excess width pillow while sleeping which has been found the major reason for developing cervical spondylosis.
 2. Faulty reading & working style- Generally it advised to keep spine erect (from cervical to coccyx) while doing ADLs But now a day's use of computers, mobile or notepads for doing work has made people to use faulty body postures especially by Students, workers, professionals etc like lying down on bad using laptops or mobile for doing their work which has increased the chances of developing various musculoskeletal hazards.
- Even females while performing their household duty like Moping, washing utensils, knitting etc bends their neck in forward position for longer periods are also prone to develop cervical spondylosis.
3. Excessive biking- Teenagers or young adults are more prone to cervical spondylosis especially those who drive for longer durations either by two wheelers or four wheelers. As erect body posture ia an important component of driving and can lead to excess stress on the spine thus can lead to various spine issue among them cervical spondylosis is of major concern.
 4. Sports injury- Among sports injuries cervical spondylosis is quite common especially in hockey (continuous forward bending of spine is required) or in contact sports due trauma or overuse of neck muscles.
 5. Degeneration-As the age increases the degeneration in bones increases (Irvine DH et.al., 1965), even the deficiencies of minerals like calcium, vitamin D3 etc also contribute. Thus leads to various degenerative disorders like arthritis, cervical spondylosis etc

SIGN & SYMPTOMS

Its includes

- Headache- It may be present in whole head or some parts, at a particular position or sometimes throughout a day.
- Giddiness/Vertigo- generally people complain of nausea, giddiness and vertigo especially when they wake up from the sleep.
- Stiffness- Neck region generally gets stiff especially after a long period of inactivity; Person feels difficulty in moving the neck region during his or her routine works. (Binder A., 2005).
- Neck pain- Pain in neck region is a common component.
- Palpitation- few patients also complain of palpitation due to neurological involvements
- Pericardial pain- People suffering from cervical spondylosis also complain of pain in the chest region, as a result neurological involvement.
- Hypertension- it has been found that high blood pressure sometimes can be atypically caused by certain neurological pathologies.

- Pain in the shoulder or arms- It has been noticed that there could be radiating pain in shoulder and arms in people suffering from cervical spondylosis (Linda J et al., 2009).

MANAGEMENT-

As per literature available there is not permanent cure for the condition but there are various techniques that are widely used for its management among them the physical therapy measures and yoga asana are widely excepted and popular means

A). In Physical therapy (Ruchi et al., 2017), various measures are followed like-

1. Advise use of Molded cervical pillows while sleeping at night and soft cervical pillows during day time to reduce the stress on the muscles and top align the spine in correct posture.
2. Mechanical traction: In this technique the widen of the foramina take place thus compression is released resulting in decrease in the sign and symptoms of the subjects by using a mechanical traction device
3. Decompressive therapies like manual mobilization, manual traction , massage etc are the most expectable techniques that are used by a physiotherapist to eliminate pain. (Feske S et al, 2007)
4. Heat and Cold therapy-Application of either heat or cold leads to sedative effect, relaxation and sudden change in the blood vessel diameter (dilatation) will increase the Blood flow (restore Oxygen supply and nutrient), drainage of waste product and thus increase healing and repair in muscle tissue.
5. Therapeutic exercises: Strengthening of the neck muscle especially the deep neck flexors helps in reducing the sign and symptoms of the patients.
 - a) Deep neck flexor exercise: The patient is instructed to slowly nod the top and flatten the curve of the neck without pushing the top back to make sure minimal activation of sternocleidomastoid muscle during the deep neck flexor contraction.
 - b) Scapular Strengthening Exercises: strengthening of the scapular helps in increases the stability at the spine and also reduces the workload on the deep neck muscles.
 - c) Cervical retraction exercise: The patient is instructed to manoeuvre the top backward slowly over the spine as far as possible with the top and eyes remaining even level.
 - d) Cervical extension exercise: These exercises are widely used in this exercises patient is instructed to retract the cervical spine, lift the chin, and extend the cervical spine to the top range. The patient then is instructed to perform 2 to three small right to left oscillations of the top. The patient then will return the top to the midline position, tuck the chin, and take back to the retracted position.
6. Lifestyle modifications: Researches have quoted that sudden lifestyle changes like stop smoking and drinking helps in relief the patient condition to certain extent.

In yoga , Asanas (yogic postures)which are performed to treat the cervical spondylosis are follows (Swami Vishnu Devananda., 1988 and Dr Sv Chamu.,2005).

1. Halasana-

It's following effects on our different body part helps to provide relief in cervical spondylosis patients:- Muscle on the neck region and upper back are strengthened. It helps to keep the back bone flexible and strong.

benefits

- Stretches the shoulders and spine
- Relieves stress and fatigue.
- It helps to make spinal cord strong and flexible.
- It makes your back bone elastic and flexible.

2. Bhujangasana (Cobra Pose)- Bhujangasana provides relief in cervical spondylitis patients because of its following effects.

- Stretches muscles in the shoulders, chest and abdominals
- Decreases stiffness of the lower back
- Strengthens the arms and shoulders and spine
- Increases flexibility in upper and middle back

3. Dhanurasana (Bow Pose)-

Cervical spondylosis can be relieved by the practices of dhanurasana as it –

- Strengthens back muscles.
- Muscles of Chest ,Neck and Shoulders are opened
- Thus flexibility is increased
- It provides relief from headache

4. Chakrasana (Wheel Pose)- Strengthens arms, shoulders, hands, wrists and legs.

- Increases elasticity of the spinal cord
- Strengthens the vertebral column and increases the oxygen in-take capacity

5. Ardhamatsyendra asana (Half Lord of the Fishes Pose)

- It stretches and energizes the spine
- Open the shoulders, neck, and hips
- Increases flexibility, especially in hips and spine
- Increases the elasticity of the spine, tones the spinal nerves and improves the functioning of the spinal cord.

6. Ustrasana (Camel Pose):

It stretches and strengthens the shoulders and back.

- Improves posture.
- Loosens up the vertebrae.
- It makes the spine more flexible and also helps in the betterment of our posture.

Conclusion: There are various ways to treat the cervical spondylosis among them yoga and physical therapy are widely expectable and reliable methods but further experimental studies are needed to establish their effectiveness.

Future scope

Further experimental studies are needed to establish the effectiveness of physical therapy and yoga in treating Cervical Spondylosis.

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