

Management of Cervical Spondylosis through Exercises and Asanas

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Abstract

Life style disorders may be resulted due to faulty daily routine, improper food habits, over or under intake of required calories, un recommended sleeps, addiction, anxiety, stress, suboptimal physical activities and very important abnormal body postures during working, driving, sitting, sleeping or reading etc. Cervical Spondylitis which is a physical abnormality in vertebrae of neck region is very common and an important disease caused by abnormal body posture especially of neck and head. Headache, giddiness, palpitation, stiffness are common presentation in these patients. In many patients high blood pressure and left sided chest pain is also found, that create confusion with Angina or some other serious ailments. When the symptoms of cervical spondylitis subsides B.P. and chest pain also subsides. X-ray of cervical spine is simplest and reliable investigation to confirm its diagnosis. In modern medicine along with physiotherapy symptomatic treatments such as pain killers, muscle relaxants or anti vertigo drugs are prescribed and no other curative measure is available. Specific *asanas*, body postures, exercises, yoga are highly beneficial. Commonly Free hand exercises and isometric exercises, *Bhujangasana*, *Ardha-matsyendrasana*, *Ushtrasana* etc being practiced successfully in day to day practice.

KEYWORDS: Life style disorders, cervical spondylitis, exercises, Asanas, Physiotherapy

Introduction

Cervical spondylitis refers to common age-related as well as life style related changes in the area of the spine at the back of the neck. With age, vertebrae (the component bones of the spine) gradually form bone spurs, and their shock-absorbing discs slowly shrink¹. These changes can alter the alignment and stability of the spine. They may go unnoticed, or they may produce problems related to pressure on the spine and associated nerves and blood vessels. This pressure can cause weakness, numbness and pain in various areas of the body. In severe cases walking and other activities may be compromised.

Cervical spondylitis is a 'wear and tear' of the vertebrae and discs in the neck. It is a normal part of aging and does not cause symptoms in many people⁴. However, it is sometimes a cause of neck pain. Symptoms tend to come and go. It is a common life style disorder of cervical spine having syndrome like presentations². It is a disease of all people i.e. it may affect all age groups. It is a disease of such type that it can affect every or any day to day activity of person like sitting, standing, walking, running, exercise, driving, reading etc. Therefore it can be labeled as disabling disease. In certain cases the symptoms and lesions of cervical spondylitis becomes so severe so that they can be life threatening also.

Common sign & symptoms of cervical spondylitis such as neck pain, headache, vertigo, vomiting, chest pain, palpitation, fluctuating blood pressure are also found in many serious illness³. Therefore most of the time these are confused with related disorders such as Angina/ MI, Cerebropathies, Ear diseases, Nasal diseases, ophthalmic problems, Blood pressure abnormalities and other chronic disorders.

Besides sign and symptoms just to confirm the diagnosis of diseases, certain investigations performed in medical science. As far as cervical spondylitis is concerned following findings may be observed in x-rays of neck region e.g. Osteophytosis or early osteophytes of vertebrae, lipping of vertebrae, spur of bones as projections, reduced space between vertebrae, trauma / fracture of bones, straightening of spine i.e. loss of normal curvature, spasm of related muscles⁵.

CAUSES- In many cases there is no specific cause to develop cervical spondylosis. In certain instances following known causes can be observed⁶:-

High pillow- Ideally no any kind of pillow should be used by any people during sleep. A normal width pillow used by any one is not so much harmful but excess width pillow is almost not advisable to any person and it may cause so many illness especially of spine. Among which cervical spondylitis is very common and serious problem.

Faulty reading & working style- Normally we should perform our all activities with our spine in erect position right from cervical vertebrae to coccyx if possible. But in practical life many person e.g. Students, workers, professionals adopt faulty body posture that give rise to number of physical abnormalities. The person who bends forward his neck region abnormally and continuously is highly prone to develop cervical spondylitis. Ideally study work should be done by using table & chair off optimum height. But many students due to negligence and laziness perform their study by sitting on bed due to which they have to bend their whole spine abnormally. Similarly many professionals and office workers performs their table work for hours by bending forward their neck continuously.

Many houses hold workers especially females do their daily activities such as Moping, wiping, knitting, cleaning etc. for longer duration. All these activity needs prolong forward bending of neck. These types of prolong and abnormal forward bending of neck possess high prevalence of cervical spondylosis in these people. Beside these many physical traumas especially in case of sports person is a common etiological factor for cervical spondylosis in these people. In hockey players cervical spondylosis is very common as they have to bend their neck very often during games.

Excessive biking- Driving is an essential and important component of day to day life. But certain rules & regulations are mandatory for safe driving i.e. keeping our body and mind in healthy state. If someone does not follow these instructions then he may harm himself in many ways. Especially in case of people who practice long driving in routine. Just to keep our spine in normal condition we should follow certain precautions like using appropriate driving posture, helmet, seat belt etc. Beside this erect body posture is very important during driving either for two wheelers or four wheelers. If these things not adopted properly they will cause excess strain on spine and will result into cervical spondylitis and other spinal troubles. Along with this damaged roads play an important role in causing excess jerks on body which will again result into certain spinal problems.

Sports injury- Games are an important components of physical activity. Different games play different role in keeping different body parts healthy. Similarly different body parts utilized for good performance in any particular sports but our spine is the structure without its use no any sport can be played. Therefore as a consequence, if proper positioning of body e.g. spine is not taken care of then it can cause any type of spinal injury. Especially in hockey where continuous forward bending of spine is required may affect any part of spine at any time. Similarly incase of football players where excess and essential use of head and neck area is required. Accidentally or unknowingly it may cause certain harms to neck bones and may develop cervical spondylosis in due course. In addition to this carelessness and any kind of negligence may result any spinal problem in any sports.

Degeneration- Formation and decay are natural phenomena of living body. But is should be timely and optimally. As the age advances certain body parts and their constituent reduces or decreases in their quantity or quality. In the terms of medical science it is called degeneration. Normally after the age of fifth or sixth decade of life degenerative process in bones starts and results into so many physical disabilities¹⁰. Cervical spondylosis is an important example of bone or its supportive structure cartilage disorder. Besides the ageing process certain deficiencies such as calcium, vitamin D3 and other minerals may also lead to bone degeneration. This deficiency may be due to poor intake of these elements in daily diet or as a consequence or complication factors in bone and joint disorders⁸.

SIGN & SYMPTOMS

Presentations of cervical spondylosis varies from person to person. In many cases it may be symptomless and can only be detected on investigation⁹.

Common sign and symptoms may be-

- **Headache-** It can be present all time or pertained to any particular time of the day. May be limited to any specific part of head or whole head. In some cases it may be related to certain body posture also.
- **Giddiness/Vertigo-** It is an important symptom in cervical spondylosis. The person can feel that he is moving and the surroundings are static and in other case one can feel like that he is stationary and the surrounding are moving. In some cases it can be so hazardous that it can be risky for life of some one. As many people may fall down from their standing position that may result into gravious injuries. In certain instances the vertigo may be related to specific body postures. Such as from sitting to standing, lying down to sitting upright, changing body side to lateral positions i.e. from supine to left or right lateral and sometimes it is observed during moving head or neck towards any side.
- **Stiffness-** Person feels difficulty in moving the neck region during his or her routine works. It can be associated with bone spasm or related muscle spasm.
- **Neck pain-** It is very common symptom in cervical spondylosis cases. May be due to spasm or some organic defect in cervical bones⁷.
- **Palpitation-** Normal heart beat is an important part of life. Its rate, rhythm, volume etc. are important to function the heart and blood circulation in optimum condition. In cervical spondylosis cases due to some neurological

involvements, the heart beat may be affected and gets faster. The palpitation is sometimes very distracting.

- **Precordial pain-** Pain in left side of chest especially in the area of heart is common presentation in cardiac troubles. But due to related neurological involvement in cervical spondylosis it may be also present in these cases.
- **Hypertension-** There are many causes behind high blood pressure. But sometimes it may be atypically caused by certain neurological pathologies in cervical spondylosis patients.
- **Muscle spasm-** Sometimes it can be only one presentation in cervical spondylosis cases. It may be due to excess or unwanted use of accessory skeletal muscles. Results into limited movement of neck bone.
- **Pain in the shoulder or arms-** In certain cases the symptoms limit not only up to head and neck, but they can also progress or refer towards shoulder and/or arms. That creates confusion with other illnesses such as cardiac diseases. Therefore it should be clarified that symptoms are due to cardiac problem or cervical spondylitis.

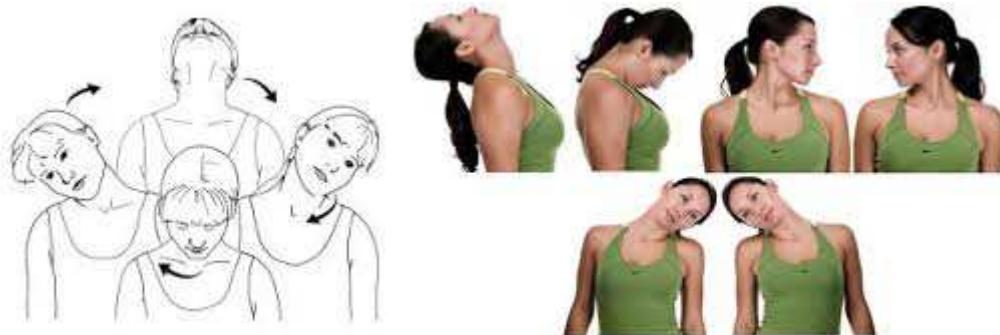
MANAGEMENT- Common treatment modalities available for cervical spondylitis are certain pain killers, muscle relaxants, physiotherapy, using cervical collar etc. Out of these measures, certain specific exercises and yogasanas¹² has mark able role and effect in curing as well as controlling the symptoms of cervical spondylitis. Here we are discussing only exercise and yogasan part of its management.

Common exercises that we use in common practice are:-

1. Isometric exercises of head and hands- In this we ask the patient to move his head in particular directions with using his hands. Such as, he is pushing his hands forward while simultaneously pushing his head backward counteracting the force made by hands. In other step opposite action is taken i.e. pushing his head backward by his hands and pushing his hands forward by his head. Than for side movements only one hand is used to push the head i.e. left hand to push head towards left side and right hand to move head toward right side to resist the forces applied by respective hands.



2. Neck rotation- In this exercise we ask the patients to move his or her neck in different directions e.g. back and forth, side to side, turning and circling without using his hand, freely and independently as shown in figure.

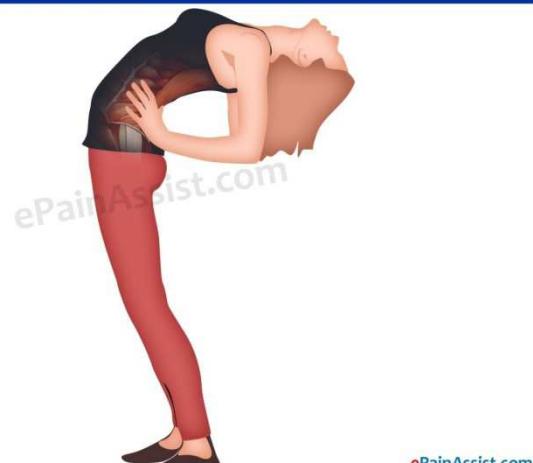


3. Shoulder rotation- Shoulders can be rotated one by one or both together. The person is asked to rotate his shoulder clock wise and anti clock wise in both directions by positioning his hand above the shoulders as shown in figure.



4. Backward bending of body- Here we ask the patient to move his body in backward direction to bend it as maximum as possible with standing position with placing his hands on sides of back as shown in figure.

Standing Backward Bend



5. Backward stretching of spine along with hands- It is also performed in standing position. Both hand joins together and twists themselves to constrict the shoulder blades towards each other that results into expansion of chest as shown in figure.

Asanas (yogic postures):

Beside exercises we ask the patients to practice following asanas for their proper benefit¹⁴.

1. Halasana-



It's following effects on our different body part helps to provide relief in cervical spondylosis patients:-

- Muscle fibers and cervical vertebrae, Thoracic vertebrae and Lumbar vertebrae on the back are strengthened.
- It helps to keep the back bone flexible and strong.
- 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.
- Opens up the chest, neck and shoulders
- Adds greater flexibility to the back
- It provides relief from headache

4. Chakrasana (Wheel Pose)-



It helps to cure cervical spondylosis as it-

- 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. Ardhmatsyendra asana (Half Lord of the Fishes Pose)



- It stretches and energizes the spine
- Opens 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.

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