

ROLE OF YOGA IN MANAGEMENT OF LOW BACK PAIN

¹Kumar Sunil

¹Lecturer, Dept. of Swasthavritta and Yoga, Major SD Singh Ayurvedic Medical College & Hospital, Farrukhabad, Uttar Pradesh,

ABSTRACT :

Back pain is the leading cause of occupational disability in the world and the most common cause of missed workdays. As the population advances our lives become more sedentary, stressful, and less time to relax the body posture this situation is unlikely to change low back pain. If these back pains persist more than three month become chronic. Today so many approaches present for low back pain but it is not relief completely. Therefore, it is essential to think about alternative approaches for low back pain management. *Yogic* practices are best modalities for management of low back pain which not only relief the pain but also release the stress. *Yoga* is an applied science of life, working on all aspects of individual like physical, mental, intellectual, emotional and spiritual, so that *Yogic* approach is most beneficial for many peoples.

Key words: low back pain, stress, *yogic* practices

INTRODUCTION: Low back pain is considered to be one of the most common complaints that bring a patient to a pain specialist. In Ayurveda *Kati Shoola* is a disease which is mainly caused by vitiation of *Vata Dosh*a. Some ancient texts also describe *Kati Shoola* as a symptom of some disorders such as *Kati Graha*, *Trika Graha*, *Prushta Graha*, *Kati Vayu*, *Trika Shoola*, *Prushta Shoola*, *Vataja Shoola*, *Trika Vedana*, and *Grudrasi Vata*^{1,2,3}. Low back pain calculated that more than three-quarters of the world's population experience back pain at some time in their lives⁴. Low back pain is a highly prevalent condition associated with work absence, disability and large health care costs. Their occurrence was observed maximally at the middle or old age group. It may be due to more physical activity during this age and maintaining wrong body postures while working, sitting, standing, or sleeping. Furthermore, there may be fast

food intake in this busy period of life, and lack of judiciously selected curative exercises can also be considered as causes of this disease. Females also suffer from low back pain due to excessive household work, lack of rest and also maintaining wrong body postures, especially while working. Older people also suffer from pain due to osteoporosis and other disease. Majority of patients were found from rich background. Two things can be taken into consideration here. Firstly, sedentary lifestyle and work-related stress of these people and, secondly, the leading age factor, the treatment was limited to patients who could afford. Prognosis of low back pain is varying with person to person. European guidelines for the management of low-back pain states that 90% of patients with acute low-back pain recover in six weeks⁵. In contrast, some well-conducted cohort studies show a less optimistic picture, providing short-term estimates of recovery ranging from 39% to

76%^{6,7}. This wide range of estimates of prognosis is likely explained by differences in cohorts and definitions used to define the onset or conclusion of an episode of low-back pain. Because very different definitions of recovery are often used, it is difficult to obtain pooled estimates of recovery rates. Instead, it might be more useful to describe the clinical course of low-back pain in terms of expected changes in pain or disability over time. Many interventions for the management of low back pain exist, however most have modest efficacy because prognosis is not good, and there are few with clearly demonstrated benefits once pain becomes chronic. So think for alternative approach in management of low back pain which not only cure the pain but also decrease the recurrence. Yogic practices have significant benefits for managing patients with acute as well as chronic low back pain.

CAUSE OF LOW BACK PAIN: Low back pain is not a specific disease but rather a complaint that may be caused by a large number of underlying problems of varying levels of seriousness⁸. Majority of low back pain does not have clear cause but result of non serious muscle or skeletal issue such as sprain or strain⁹. Obesity, smoking, weight gain during pregnancy, stress, poor physical condition, poor posture and poor sleeping position may also contribute to low back pain⁹. Physical causes may include osteoarthritis, degeneration of the discs between the vertebrae or a spinal disc herniation, broken vertebrae (such as from osteoporosis) or, rarely, an infection or tumour of the spine¹⁰. Women may have acute low back pain from medical conditions

affecting the female reproductive system, including endometriosis, ovarian cysts, ovarian cancer, or uterine fibroids¹¹. Nearly half of all pregnant women report pain in the lower back or sacral area during pregnancy, due to changes in their posture and centre of gravity causing muscle and ligament strain¹². Sciatica is also one of causative factor of low back pain¹³.

Low back pain can be broadly classified into four main categories:

1. Musculoskeletal: Osteoarthritis, Nerve root compression caused by herniated disc, Pressure on nerve roots in spinal canal deformities such as severe scoliosis or kyphosis, Compression fractures which is more common among postmenopausal women with Osteoporosis

2. Inflammatory: Ankylosing spondylosis, spondylolithiasis, and inflammation due to overuse of muscles, ligaments of sacroiliac joint

3. Malignancy: Spinal tumour may be primary or secondary

4. Infectious: TB, osteomyelitis, Paget's disease, abscess

SIGN AND SYMPTOM: In the common presentation of acute low back pain, pain develops after movements that involve lifting, twisting, or forward-bending. The symptoms may start soon after the movements or upon waking up the following morning. The symptoms may range from tenderness at a particular point to diffuse pain. It may or may not worsen with certain movements, such as raising a leg, or positions, such as sitting or standing. Pain radiating down the legs may be present. The first experience of acute low back pain is

typically between the ages of 20 and 40. This is often a person's first reason to see a medical professional as an adult¹⁴. Recurrent episodes occur in more than half of people¹⁵ with the repeated episodes being generally more painful than the first¹⁴. Other problems may occur along with low back pain. Chronic low back pain is associated with sleep problems, including a greater amount of time needed to fall asleep, disturbances during sleep, a shorter duration of sleep, and less satisfaction with sleep¹⁶. In addition, a majority of those with chronic low back pain show symptoms of depression¹⁷.

CLASSIFICATION: There are three general types of low back pain by cause.

Mechanical: nonspecific musculoskeletal strains, herniated disc, compress nerve root, degenerated disc, and joint disease.

Non mechanical: tumour, spondyloarthritis, infection.

Referred pain: gallbladder stone, renal stone, aortic aneurism.

MANAGEMENT: Yoga is practicing since from vedic time for the purpose of self-realization. They have realized the necessity of steady posture for a steady mind which is essential for spiritual uplift. The impossibility to disregard the greater benefits gained by the yoga practice for preserving the health has also been realized.

For the low back pain *Tadasanas*, *Bhujangasanas*, *Makarasnas*, *Shalbhasanas* *Savasans*, and *Pranayama* etc. are indicated¹⁸. Among these innumerable *Yogasanas*, some work especially on back i.e. *Tadasanas*, *Bhujangasanas*, *Makarasnas*, and *Shalbhasanas*. *Tadasanas*

impart Congestion of spinal nerves cleared at their emerging points and keep the spine healthy and lengthen¹⁹. *Bhujangasana*, *Makarasnans*, *Shalabhasanas* increase flexibility, reduce stiffness of muscle and joint of the lower back. These are also improving circulation of blood and oxygen especially throughout the spinal and pelvic organ. *Pranayama* valuable tool to manage pain with increase the pain threshold, regulating the breath, revitalizes the body and help in relaxing the mind. *Savasanas* reduces anxiety and stress in painful conditions, improve mental and emotional states¹⁹. These yogic practices such correct the vertebral curvatures, with respective angles and strengthen thoracic and abdominal cavities along with respiratory muscles supporting the maintenance of proper posture. It is also safe for individuals with back pain, because it does not increase the risk of future back injuries. The first and most obvious goal is to improve or eliminate impairments in back flexibility and strength, and improve performance of endurance activities. There is a large body of evidence confirming that this goal can be accomplished for a majority of patients with low back pain. The second goal of exercise is to reduce the intensity of back pain. The third goal of exercise is to reduce back pain-related disability through a process of desensitization of fears and concerns, altering pain attitudes and beliefs and improving *affect*. Galantino et al. also published a randomized controlled pilot study in 2004 studying the effects of a modified yoga protocol on patients with chronic low back pain²⁰.

CONCLUSION: Low back pain is caused by multifactor and highly successful management of multifactorial disease depends on multi-focus treatment approach. The approaches of yogic practices are a holistic way with multi-target. It is a form of mind–body exercise which couples physical exercise with mental focus through breathing and meditation. Yoga regarded as form of medicine or part of complementary and alternative medicine. It has been suggest yoga creates inner physical and emotional balance through the use of postures called *Asanas*, that are combined with breathing technique or pranayama that are based mainly on isometric contraction. Yoga is diverse clinical or nonclinical application. This is mainly attributed to the degree of complexity and multidisciplinary of influence that is apparent in yoga exercises. Low back pain can be prevented in a majority of cases with regular and proper yogic technique, correct posture tight the muscles, reducing the tension and strengthening the muscle. Yoga and meditation which have both been gaining in popularity over the last decade are two mind–body exercise interventions that address both the physical and mental aspects of pain with core strengthening, flexibility and relaxation. So these yogic techniques for low back pain would have significant benefits for the people.

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Corresponding Author: Dr.Kumar Sunil, Lecturer, Dept. of Swasthavritta and Yoga, Major SD Singh Ayurvedic Medical College & Hospital, Farrukhabad, Uttar Pradesh, Email: drsunilbhu2011@gmail.com

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