



Usefulness of Yoga Posture in the Management of Chronic Low Back Pain

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Abstract

Chronic low back pain (CLBP) is one of the most prevalent conditions affecting millions of people. There are various treatment options for CLBP, but no single therapy stands out as being the most effective. Yoga popularity has grown tremendously in the past several years. Yoga was the most commonly used treatment therapy which is used mainly to treat musculoskeletal related disease. It is difficult to endorse one specific yoga posture in all types of low back pain. But that patient who suffered from chronic low back pain without major causes definitely got some relief if he or she practices yoga posture in a proper way. In this paper we try to explain some yoga posture which is beneficial for the patient who suffered from chronic low back pain.

Keywords: Yoga; Low Back Pain; Chronic Low Back Pain; Alternative Therapies

Introduction

Low back pain (LBP) affects millions of people at some time in their lives and its prevalence is increasing over the years. About 80 % of the people experience an episode of LBP at some time during life [1]. The majority of individuals (95%) of those afflicted recovering within a few months. However 25–80% of LBP patients experience some form of recurrent back problem in the following years. Among those who suffer from an episode of LBP will not recover and develop chronic low back pain [2]. CLBP, defined as pain lasting more than 12 weeks, accounts for 50% of total back pain costs. Risk factors of CLBP include obesity, older age, prior history of back pain, restricted spinal mobility, high levels of psychological distress, poor self-rated health, minimal physical activity, smoking, job dissatisfaction etc [3].

Only a small number of patients with LBP have a clear diagnosis. The exact mechanism of LBP is often unclear. Some specific causes reported in the literature are: Congenital/developmental-spondylosis, spondylolisthesis, kyphoscoliosis, spinal bifida occulta; trauma-strain or

sprain, vertebral fracture; degenerative- spinal stenosis with neurological claudication, internal disc disruption, disk-osteophytes complex; arthritis- ankylosing spondylitis, sacroiliac arthropathy; neoplasm-metastatic, primary bone tumors; Infection and inflammation-vertebral osteomyelitis, septic disk, meningitis, lumbar arachnoiditis; metabolic-paget's disease, osteoporosis due to hyperparathyroidism; vascular-abdominal aortic aneurysm; others- referred pain from visceral disease, postural, some gynaecological disease etc. While there were multiple causes of lower back pain, a weak core and poor posture from sitting all day are the two most common factors to cause LBP.

People suffering from CLBP have other associated problems such as anxiety, depression, and disability, with a reduced quality of life [4]. The utilization of health care services by patient of CLBP has increased substantially over the past two decades because individuals with chronic LBP are more likely to seek and utilize *more care* [5]. CLBP is a disease which cannot be cured completely by using NSAIDs, epidural steroids injection or through surgical intervention in all the patients. Nevertheless, the condition can be

managed by adopting various modalities of alternative and complementary therapy and provide better quality of life for the patient. Among different alternative therapies, yoga is one of the important treatment therapies which have been reported to be useful in the management of CLBP.

Yoga popularity has grown tremendously in the past several years. Yoga was the most commonly used treatment therapy which is used mainly to treat musculoskeletal related disease particularly in back pain. It is difficult to endorse one specific yoga posture in all types of low back pain. But those patient who suffered from chronic low back pain without major causes definitely got some relief if he or she practice yoga posture in a proper way. Several randomized control trials (RCT) about yoga's effect on low back pain have been completed previously. However they have varying outcome measures about pain and functional disability. A number of studies have demonstrated yoga's effectiveness in reducing chronic low back pain [7-9].

Yoga Posture

Ardha Pavanmuktasana

• Procedure

- First of all lie down on supine position
- Inhaling slowly raise the right legs to a 60 degree angle from the floor.



Figure 1: Ardha Pavanmuktasana and Pavanmuktasana

- Then bend right knee and keep right thigh on the right side of chest, then hug right leg with both the hands.
- Keep left leg straight and stretched, left hamstrings pressed against the floor with left heel sliding in and left toes flexing out.
- Bend the neck and place the chin on the right knee. Continue to maintain the asana at least 30 seconds or as per comfort with normal breathing.
- Release and repeat the same sequence with left leg.
- It can be practice by bending both the legs and the Asana is known as pavanmuktasan.

Pavanmuktasan

- First of all lie down on supine position
- Inhale slowly raises the legs to a 90 degree angle from the floor.
- Bend both legs at the knees and rest the thighs against the abdomen, keeping the knees and ankles together.
- Hold the knees with both hands.
- Bend the neck and place the chin on the knees if possible.
 - Maintain the asana for 30 seconds with breathing normally.
- Exhaling slowly straighten the neck and lower the head back on to the ground.
- Release the arms and place them beside the body.
- Lower the legs and back to the supine position.

Makarasan (Crocodile Pose)

• Procedure

- Lie down on the floor on prone position.
- Fold both hands and keep the tip of the elbows on the ground with fingers facing upwards.
- Now, raise shoulders and head with keeping neck straight and look ahead.
- Bend the head a little forward and place a chin in palms.

- Stretch out both legs with the toes facing outwards.
- Breathe normally and slowly and relax whole muscles.
- Stay in the asana for a few minutes.
- Then gently remove palms from the chin, bring shoulders and head down.
- Return the arms to the sides of the body and the chin on the floor.
- Advance variation of makarasan is more beneficial in low back pain.

- In advance makarasan posture first of all make simple makarasan position and raise one legs and bend it from the knee and try to touch buttock by heel. Keep another

leg straight on the ground with sole facing upwards. Repeat the same by another leg.



Figure 2: Makarasan.

Bhujangasan (Cobra pose)

- **Procedure**

- Lie on stomach/ Lie prone with toes flat on the floor and forehead resting on the ground.
- Keep legs close together, with your feet and heels lightly touching each other
- Keep both hands under shoulders with palms downwards, keeping elbows parallel and close to trunk
- Taking a deep breath in, slowly lift head, chest and

abdomen.

- Then pull your trunk back and off the floor with the supports of hands.
- Straighten both arms by arching your back as much as possible and tilt your head back and look up
- Hold the pose for 15 to 30 seconds, breath easily
- With breathing out, gently bring abdomen, chest and head back to the floor.
- Practice the steps above without any jerk and stretch 5-6 times per day.



Figure 3: Bhujangasan

Salabhasan (Locust Pose)

- **Procedure**

- Lie down on prone position
- Keep legs close together, with your feet and heels lightly touching each other
- Stretch out both hands with the palm facing upwards and kept palm below the each thigh.
- With keeping neck straight kept the chin on the floor

and look ahead.

- Taking a deep breath in, slowly lift both the leg as high as possible.
- Hold the pose for 15 to 30 seconds
- With breathing out, gently bring both legs back to the floor.
- Practice the steps 5-6 times without any jerk and stretch
- **Note**-we can do this asana by rising one legs also.

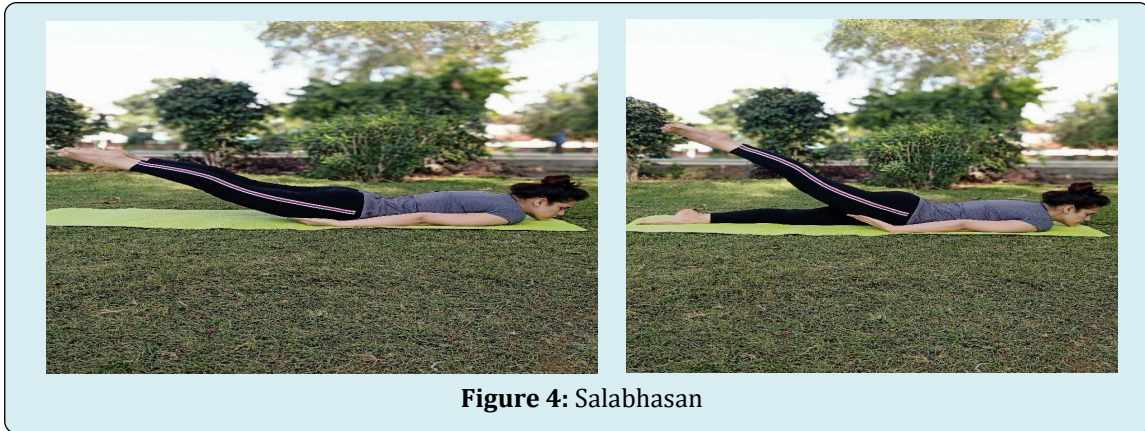


Figure 4: Salabhasan

Markatasan (Spinal twist yoga pose)

- **Procedure**

- Lie down on supine position.
- Spread both hands at the level of the shoulders and keep palms open with facing upwards.
- Now fold both legs from knee and with inhaling turn both legs to the left side.

- Turn neck and head to the right side and hold this position for few seconds.
- Now while exhaling come to the starting position.
- Then with inhaling turn the both legs to the right side and turn neck and head to the left side.
- Hold this position for few seconds and while exhaling come back to the starting position.
- Repeat this cycle for 10-15 times.

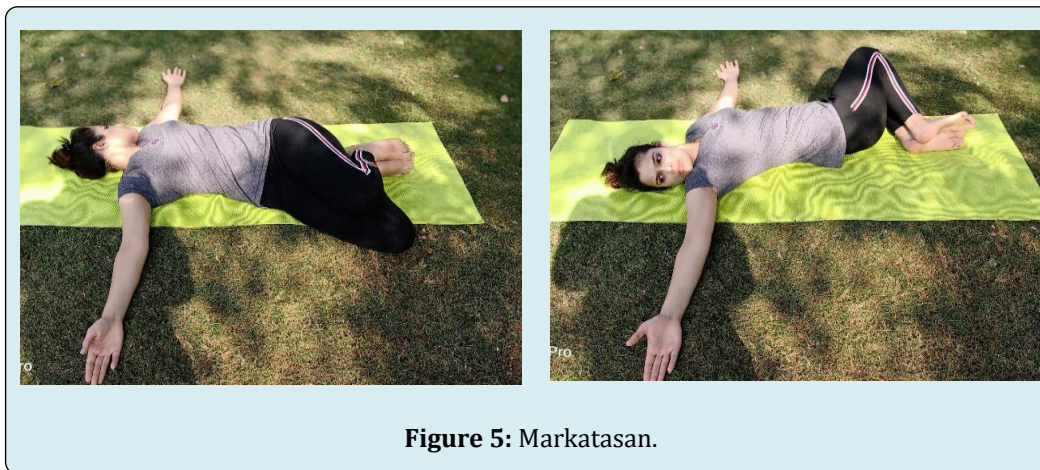


Figure 5: Markatasan.

Precautions

If there is any history of lower back injuries, problems with discs, or experience pain that lasts more than 3 days without improving, then it is necessary to consult with doctors before doing yoga. If there is any problem that requires medical attention, it's best to address it before it becomes worse. Firstly start from a simple yoga posture and increase gradually. Proper guidance and training is essential in some conditions. In Acute severe pain rest is necessary rather than practicing yoga posture. Person suffering from hernia, gone through recent abdominal surgery and pregnant women should not practice these yoga postures.

Conclusion

Yoga was the most commonly used treatment therapy for musculoskeletal related disease particularly in back pain. Yoga seems effective and safe intervention for chronic low back pain. Mainly above mentioned five yoga posture are effective in reducing pain severity of low back pain when practice in a proper way.

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