

A Review Study on Effect of Yogic Practices on Primary Dysmenorrhoea

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Abstract- *Dysmenorrhoea refers to painful menstruation of sufficient magnitude so as to incapacitate day to day activity. Dysmenorrhoea is a common menstrual complaint with a major impact on women's quality of life, work productivity and health care utilization. The prevalence of dysmenorrhoea varies between 16% and 91% in women reproductive age, with severe pain in 2-29% of the women studied. Women's age parity and use of oral contraceptives were inversely associated with dysmenorrhoea. Yoga is recognized as a form of mind-body medicine that integrates an individual's physical, mental and spiritual components to improve aspects of health, particularly stress related illnesses. Asana also help in relieving congestion in these organs, especially uterus, which is one of the reason for Dysmenorrhoea pain. The purpose of this review was to assess the evidence for the effectiveness of Yoga interventions for the primary dysmenorrhoea.*

Keywords- Asana, Yoga, Dysmenorrhoea.

I. INTRODUCTION

Dysmenorrhoea means painful menstruation. But a more realistic and practical definition includes cases of painful menstruation of sufficient magnitude to incapacitate day to day activity.¹ Primary dysmenorrhoea is one where there is no identifiable pelvic pathology and secondary dysmenorrhoea is one where there is presence of pelvic pathology.² Dysmenorrhoea is a condition strictly related to the menstruation. Once the menstruation is over, these menstrual molimina will disappear leaving behind an anxiety free well-beingness in the women.

Most of women report having uncomfortable symptoms before their period. Most women are very familiar with the symptoms of acne, anxiety, backache, bloating, breast tenderness, cramps, cravings, depression, fatigue, headaches, insomnia, joint pain, nervousness, mood swings, and personality changes. The list it seems includes most everything negative a woman feels monthly, although some women seem to have it much worse than others. Many women complain that these symptoms last for 2 weeks before

menstruation – which equals up to about half of their lives. These symptoms effect their social, academic and sports activities to a major extent.

Cramps, backaches, breast tenderness, and headaches are some of the common PMS symptoms that cause physical pain. What they have in common is the relation to prostaglandin production and balance. Prostaglandins are hormone-like chemicals derived from fatty acids that have several different roles in the body. They help promote smooth muscle contraction and blood vessel dilation – essential for a normal menstrual cycle. They also aid in inflammatory processes in the body – causing swelling, stiffness, warmth and pain.

Yoga is a holistic approach towards a physically and mentally healthy lifestyle. When practiced regularly over a period, it can have the desired effects on the body. However, it is strongly advised that if one is on any sort of medication, doctor must be consulted before giving up the prescribed medication. Yoga should be adopted to help reach the goal of a pain-free period but should not be used as the only means to get there.

INCIDENCE

Dysmenorrhoea is the most common gynaecological symptom reported by women. Ninety percent of women presenting for primary care suffer from some menstrual pain.³ Furthermore, one third to one half of these women report moderate or severe symptoms. Symptoms are frequently associated with time lost from school, work, or other activities.⁴ Despite the frequency and severity of dysmenorrhoea, most women do not seek medical treatment for this condition.

II. MATERIALS AND METHODS

JanuSirsasana⁻⁵

JanuSirshasana (head to knee pose) Sit with the legs outstretched and the feet together. Bend the left leg, placing

the heel of the foot against the perineum and the sole of the foot against the inside of the right thigh. Keep the left knee on the floor. Place the hands on top of the right knee, keeping the spine straight and the back muscles relaxed. This is the starting position. Slowly bend forward, sliding the hands down the right leg, and grasp the right foot. If possible, hold the big toe with the index finger, middle finger and thumb of the left hand and the outside edge of the foot with the right hand. Try to touch the knee with the forehead. This is the final position. Keep the back relaxed and do not strain. Hold the position for as long as is comfortable. Return to the starting position and rest the hands on the knees. Change sides and repeat with the right leg bent and the left leg straight. Practise up to 5 times with each leg.

*Vajrasana*⁶

Kneel on the floor. Bring the big toes together and separate the heels. Lower the buttocks onto the inside surface of the feet with the heels touching the sides of the hips. Place the hands on the knees, palms down. The back and head should be straight but not tense. Avoid excessive backward arching of the spine. Close the eyes, relax the arms and the whole body. Breathe normally and fix the attention on the flow of air passing in and out of the nostrils. Duration: Practise *Vajrasana* as much as possible, especially directly after meals, for at least 5 minutes

*Shavasana*⁷

Lie flat on the back with the arms about 15 cm away from the body, palms facing upward. A thin pillow or folded cloth may be placed behind the head to prevent discomfort. Let the fingers curl up slightly. Move the feet slightly apart to a comfortable position and close the eyes. The head and spine should be in a straight line. Make sure the head does not fall to one side or the other. Relax the whole body and stop all physical movement. Become aware of the natural breath and allow it to become rhythmic and relaxed. Begin to count the breaths from number 27 backwards to zero. Mentally repeat, "I am breathing in 27, I am breathing out 27, I am breathing in 26, I am breathing out 26", and so on, back to zero. If the mind wanders and the next number is forgotten, bring it back to the counting and start again at 27. If the mind can be kept on the breath for a few minutes the body will relax.

III. DISCUSSION

Asana are the posture through which the body gets relaxed, strengthened and becomes more flexible and balancing action on the sympathetic and parasympathetic nervous system.

- It has a calming effect on the nervous system and also exerts an important effect on the endocrine system to help in regulating the hormones
- Yoga reduces the severity and duration of primary dysmenorrhoea.
- Asanas which are used mainly stretch abdominal muscles and strengthen the back muscles and massage the organs lying in the pelvis.

The cause of pain at the time of menses is believed to be due to the production of prostaglandins in the endometrium in an ovulatory cycle. It is one of the most important causes of absenteeism among adolescent girls as it affects their academic performance and also has a negative impact on quality of life [7]

Yoga is known to play an important role in reducing stress and sympathetic activity, increasing parasympathetic activity, improving one's quality of life, and also by decreasing psychological symptom levels [22].

Research regarding the pathophysiology of dysmenorrhoea suggests that the pain accompanying this disorder is caused by hyperactivity of the uterine muscle, subsequent reduction in blood flow, and concomitant uterine ischemia.⁸

Various researches have been conducted regarding the effect of *Yoga* on dysmenorrhoea with strikingly positive results. Women experiencing menstrual discomfort should practice *Yoga* to help them lead a normal and stress-free life. All these poses are to help relieve symptoms of painful menstruation. A growing body of evidence supports the belief that *Yoga* benefits physical and mental health via down-regulation of the hypothalamic-pituitary-adrenal axis and the sympathetic nervous system. *Yoga* may be a safe and cost-effective intervention for managing menstrual problems. *Yoga* plays an important role in reducing stress and sympathetic activity, increasing parasympathetic activity, improving one's quality of life, and decreasing psychological symptoms levels.⁹

Additionally, psychological stressors can directly provoke transient increases in proinflammatory cytokines. *Yoga's* reputation for stress reduction and mental health benefits has bolstered its popularity in recent years, and data from randomized trials suggest that *Yoga* reduces symptoms of anxiety and depression. Mechanistic explanations for *Yoga's* potential mental and physical health benefits have highlighted reductions in sympathetic nervous system tone and increases in vagal activity, both of which could have favourable endocrine and immune consequences, including

lower inflammation. It has been suggested that the number of regular ovulatory menstrual cycles is associated with an increased risk of breast cancer for women. At the same time, there is growing evidence of an association between psychosocial stress and menses-associated health problems in women, suggesting that stress may affect menstrual function.

Janu Sirshasana one in which the pelvis rotates 90°, thigh is flexed with respect to the torso and the right thigh is hyper extended. Such position causes facilitation of autonomic nervous system causing increase awareness of the nervous system, co-ordination and stretching of the muscle leads to increase in blood supply and pain relief. Forward bending tends to inhibit the somatic nervous system and sympathetic limb of autonomic nervous system. Flexing forward enough in spine and hips to compress the abdomen have mildly in vigorating effects on abdominal organs stimulating enteric nervous system. Sitting posture such as *Vajrasana* will give relaxation of pelvic floor muscles leading to pain relief.

Lying posture like *Shavasana*, will diminish the sympathetic effects on organs and tissues throughout the body. When you lie down to relax, the sympathetic nervous system calms down, reduces the muscle tone in smooth muscle that encircles artery and arterioles which allows those vessels to dilate to increase the blood supply.¹⁰

Abdominal cramping and other menstrual tensions allow the flow to be less uncomfortable. Forward bends generally increase circulation into the pelvis and lower extremities. Thus, any cramping of the legs and/or swelling of the shins, ankles, or feet, may be reduced. The bent knee in *Janu Sirsasana* opens the hips. The uterus discharges the menstrual flow optimally, with little or no cramping. Abdominal organs are toned, passively, without tension, and the balance of the intestinal system is restored. The downward nature of the head rests the mind completely. Those with a problem of scanty flow may find the forward bends release and improve the flow. In addition, another study reported that *Yoga* poses improve spinal flexibility and strengthens muscles in the back and *YogaNidra* means psychic sleep which may induce deep relaxation and, subsequently decrease oxygen consumption causing pain relief.¹¹

IV. CONCLUSION

Yoga poses are safe and simple treatment for primary dysmenorrhoea. It reduces severity and duration of primary dysmenorrhoea. Though there are less evidences of whether *Yoga* can be used as a complete therapy for dysmenorrhoea, but it can surely be used as a combination or alternate therapy for the same. Selected *Yoga* postures can be used as a

homebased treatment. It is cost effective. In many research studies done, it has not shown any side effects in the treatment of primary dysmenorrhoea. It causes reduction in frequency of taking medications, absenteeism at workplaces.

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