

Title- Role of Yoga in the management of Dysmenorrhoea

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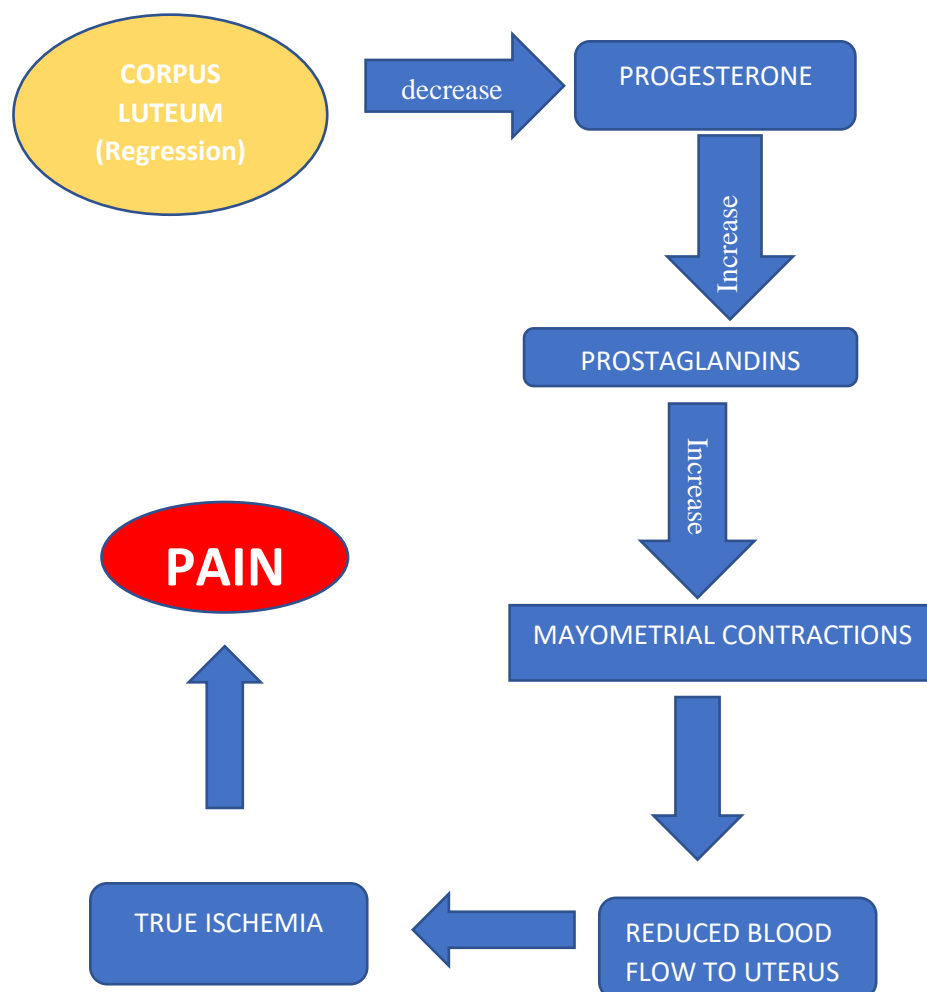
Abstract - Dysmenorrhoea, which is menstrual pain is one of the most common and underrated gynaecological disorder affecting menstruating woman. Although the symptoms and impact may vary greatly. It is defined by lower abdominal cramps and pain, radiating towards lower back and thighs. In some cases, it is also accompanied by nausea, loose motions, fever, etc Yoga(Asanas/Pranayama/Yoga Nidra) helps with improved pain tolerance, and reduce stress levels regulating stress pathways and blood circulation to uterus. Yoga is being explored as a non-pharmacological, cost-effective and feasible alternative that can benefit women with dysmenorrhoea. Improved body circulation with good physical and mental health Yoga has been highlighted as key factors in reducing dysmenorrhea and experiencing a healthy menstrual cycle.

Keywords- yoga, dysmenorrhoea, menstrual cycle, asanas.

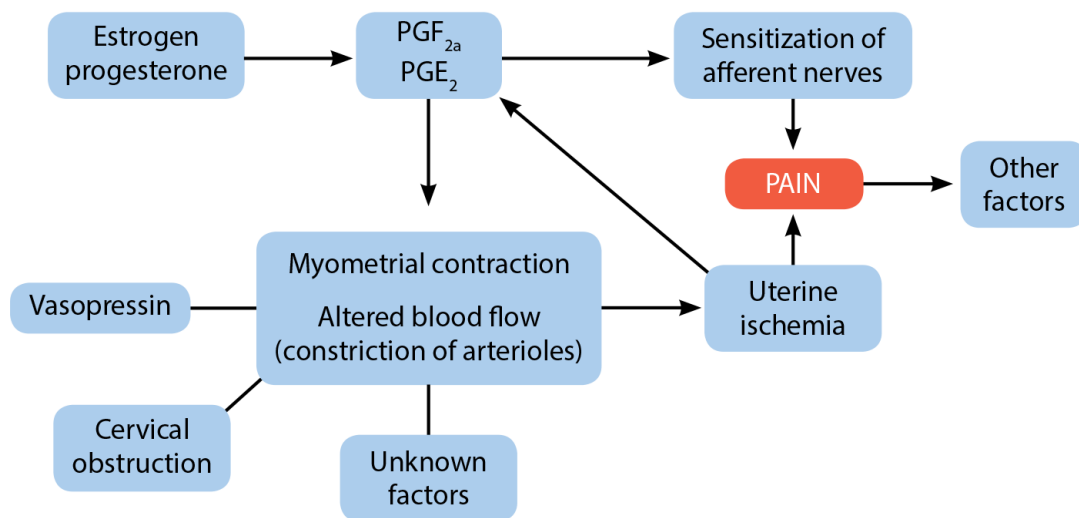
Introduction- Dysmenorrhoea is a common problem in women of reproductive age. Primary dysmenorrhoea is defined as painful menses in women with normal pelvic anatomy, usually begins during adolescence. Affected women experience sharp, intermittent spasm of pain usually concentrated in the supra pubic area. Pain may radiate to the back of the legs or the lower back. Systemic symptoms of nausea, vomiting, diarrhoea, fatigue, mild fever and headache or light headedness are fairly common. Pain usually develops within hours of the start of the menstruation and peaks as the flow becomes heaviest during the first day or two of the cycle. Appropriate therapy and management are required due to the decreased quality of life, ineffective working hours, and mood swings caused by dysmenorrhea. The risk factors for dysmenorrhoea are; age < 20 years, nulliparity, heavy menstrual flow, smoking, upper socioeconomic status; attempts to lose weight, physical inactivity, disruption of social networks, depression and anxiety. Physical activity is also an important behavioural cofactor; people who describe themselves as active have lower levels of inflammatory biomarkers than their sedentary counterparts. 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. In order to improve women's health, several complementary and alternative strategies have been employed to reduce dysmenorrhea, which includes the use of medicinal herbs with analgesic properties. Typically, non-steroid anti-inflammatory medications or oral contraceptives are

used to treat dysmenorrhea. Transcutaneous electrical nerve stimulation, acupuncture, acupressure, topical heat, behavioural interventions, relaxation, herbal and dietary therapy are just a few of the alternatives for dysmenorrhea that are receiving more attention in recent years. Among the several complementary therapies accepted, practice of yoga has been added to the list. Yoga is a type of mind-body exercise that combines physical body with a conscious mental emphasis. Yoga is regarded as one of the best holistic stress management approaches since it causes a series of physiological changes in the body that lessen the stress and pain response. In case of dysmenorrhea, yoga suppresses the pain by lowering the level of prostaglandin production and myometrial ischemia.

Pathophysiology of Dysmenorrhea - to know how pain is caused Over the years, a number of hypotheses have been put forth to evaluate the cause of primary dysmenorrhea. Experimental and clinical research has revealed the release of uterine prostaglandins which play a significant role in the progression of primary dysmenorrhea. NSAIDs nonsteroidal anti-inflammatory drugs have shown to be effective in reducing the prostaglandin levels so produced during the bleeding. As a result of endometrial shedding during menstruation, prostaglandins are released along with the blood. This is accompanied by other enzyme release that breaks down the cell membranes. This release of prostaglandin stimulates myometrial contraction and constricts small endometrial blood vessels, resulting in tissue ischemia, endometrial disintegration, bleeding and pain. Another study also suggested an upregulated cyclooxygenase (COX) enzyme activity as a major contributor to the pain experienced by women with primary dysmenorrhea



There are certain known factors that seem to play significant roles in its pathogenesis; most important among these factors include excessive uterine contractility, disturbances in uterine blood supply, synthesis of prostaglandins, and anatomical abnormalities of the female reproductive tract.⁶ During menstruation in eumenorrhic women, the uterine basal tone is minimal (10 mmHg), elevated active pressures (> 120 mmHg), increased number of contractions per 10 minutes (> 4 or 5), and non-rhythmic or incoordinate uterine contractions. These contraction abnormalities reduce uterine blood flow, leading to poor uterine reperfusion and oxygenation, and thus causing pain.



Source: Lefebvre G, Pinsonneault O, Antao V, Black A, Burnett M, Feldman K, Lea R, Robert M; SOGC. Primary dysmenorrhea consensus guideline. *J Obstet Gynaecol Can.* 2005 Dec;27(12):1117-46.

Yogasanas that are helpful in managing dysmenorrhea-

1. **Bhujangasana:** This asana is known to tone the female reproductive system- the uterus and the ovaries thereby alleviating menstrual pain and reducing stress. It also helps by stretching the abdominal muscles.



2. **Matsyasana:** It helps in improving flexibility of the spine and also stimulates the abdomen increasing blood supply to the pelvic organs. **Vajrasana:** This asana helps in relaxation of pelvic floor muscles which reduces the stimuli passing through the spasmodic muscles leading to pain relief.



3. **Dhanurasana:** It stimulates the uterus and also increases the blood flow and relieves back pain during menstruation. It also stretches the muscles of the posterior aspect of trunk, ankles, and groin.



4. **Badhkonasana:** it is also known as butterfly pose. It gives a stretch to pelvic area, inner thighs, and lower belly relieving congestion, it not only reduces pain but also it is a best asana for fertility.



5. **Ushtrasana-** It strengthens the chest, abdomen and quadriceps muscles and tones the glutes and hamstrings (back of thigh) muscles. Ushtrasana may allow the cervical tension to be reduced while stretching the neck in the backbend. Best for the sedentary lifestyle stress



6. Halasana: It stretches your spine and stretches, strengthens, and tones your back muscles. It helps prevent and relieve tightness in your neck, shoulders, and back. The pose also strengthens your shoulders, arms, and legs. Practicing Halasana enhances flexibility, which improves muscle and joint mobility. Enhances blood circulation to uterus.

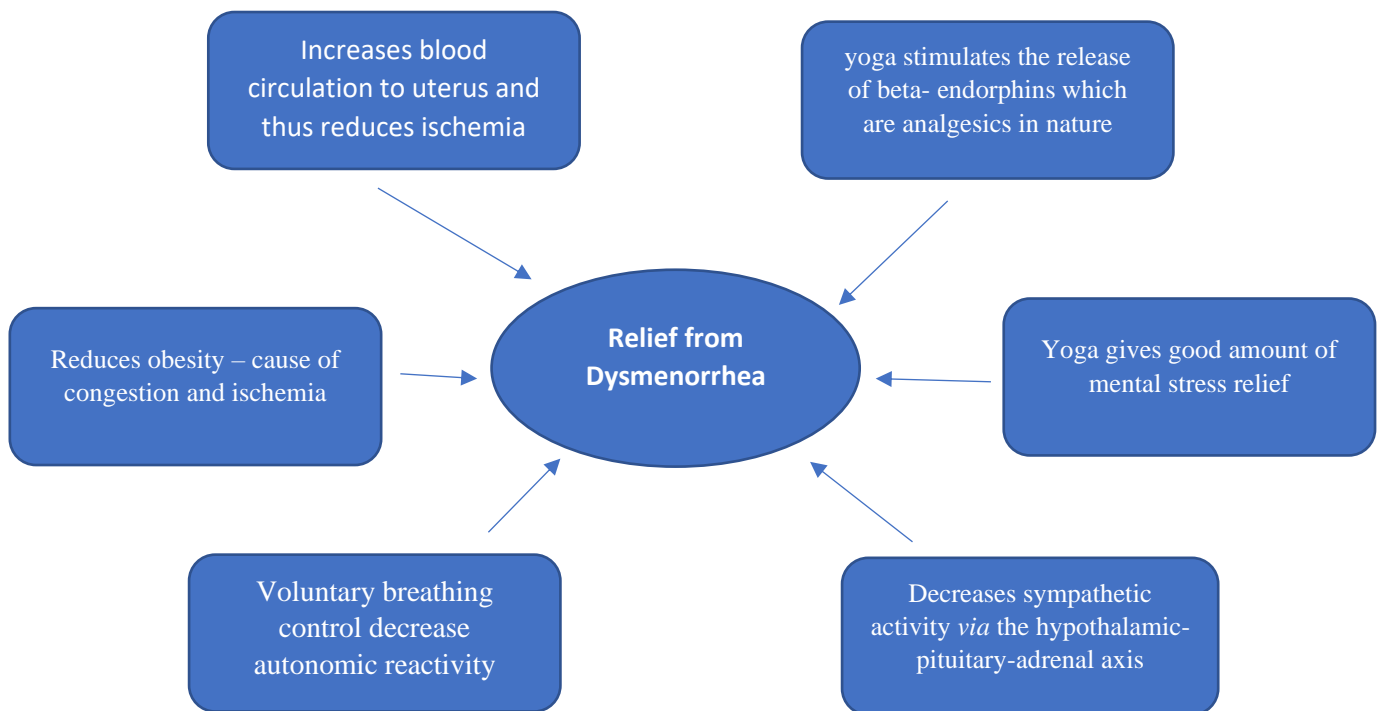


Inspite are of this Pranayama like— kapalbhati, anuloma villoma, bramahri pranayama and yoga nidra helps to relieve mental stress which ultimately helps to reduce the dysmenorrhea.

How intervention of Yoga helps in dysmenorrhea -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. It also has beneficial effects on physical and mental health problems through downregulation of the hypothalamic– pituitary–adrenal axis and the sympathetic nervous system, which may also be useful for managing primary dysmenorrhea by reducing menstrual pain. Yoga helps in increasing the flow of vital energy to the reproductive organs and establishes a balance among hormones regulating menstruation. Exercising affects the levels of steroid hormones in blood circulation of women in reproductive ages. Any form of exercise is known to release endorphins which is produced by the brain that raises the pain threshold. Postures help to stimulate the nervous system from with sensory input from all over the body. Increase of vasoactive prostanoids leads to myometrial hyperactivity, reduced uterine blood flow and tissue ischemia all causing pain or dysmenorrhea during the cycle. Yoga and pelvic *asanas* are known to improve blood flow in the pelvic region thereby managing pain in the body. Further yoga also stimulates the release of beta- endorphins which are analgesics in nature. Studies have also shown the release of hormones like cortisol, glucose, plasma's renin, epinephrine and norepinephrine in the bloodstream as an effect of yoga that helps in regulating healthy body functions. Voluntary breathing control technique has been employed in many yogic interventions to decrease autonomic reactivity. Yoga also decreases sympathetic activity *via* the hypothalamic-pituitary-adrenal axis which plays an important role in contributing to pain reduction. Deep breathing and long exhalation relaxes the skeletal muscles in the body, especially the pelvic area and also contribute to pain reduction. A study suggests regulation of alpha brain waves, responsible for relaxation,

pain relief and release of serotonin, favourably during yoga practice. One longitudinal study indicated that being overweight was a significant risk factor for both the likelihood of feeling dysmenorrhea and the increased duration of suffering. In two cross-sectional investigations, heavy or irregular periods were linked to a higher prevalence of dysmenorrhea. Four studies that investigated the association between smoking cigarettes and dysmenorrhea found that smokers had a higher risk of developing dysmenorrhea. Improved body circulation with good physical and mental health has been highlighted as key factors in reducing dysmenorrhea and experiencing a healthy menstrual cycle

FIG. NO. 3 ROLE OF YOGA IN RELIEF FROM DYSMENORRHEA



DISCUSSION- Yoga is just not limited to physical health or targeted to treat one disease. It is a part of dincharya. Astanga Yoga that is – Yama, Niyama, Asana, Pranayama, Dhyana, Dharana, Pratyahara is designed in such a way that it embraces the every part of human being. Yoga is for healthy person to maintain the health, as well as it helps to get rid of many diseases and also to achieve the best of mind and body control. Yoga improves appetite, facilitates flexibility and reduces the excessive fat in the body. Which ultimately reduces obesity, yoga helps to gain vital energy, reduces pain due to any work schedule, provides good sleep. Pranayama provides good immunity, keeps away from respiratory disorders, promotes sleep and a stress free life. NSAIDs nonsteroidal anti-inflammatory drugs have shown to be effective in reducing the prostaglandin levels so produced during the bleeding, simultaneously it reduces the blood flow in menses. How yoga acts from all ways on the body is what we expect to happen in Dysmenorrhea. Dysmenorrhea is caused by many factors which are mentioned

above. To which yoga can nullify by its effects. Primarily it helps to relieve congestion from the pelvic area and provide good blood supply to the uterus. Dysmenorrhea may seem very mild factor in females life but at the same time it is neglected one. Dysmenorrhea hampers once day to day life. Including Yoga in day to day life can relieve dysmenorrhea as explained above and can improve the quality of life of a female.

Yoga helps in the following manner

1. Increases energy and blood flow, especially in the pelvic areas.
2. Stimulates the reproductive system directly by focusing on the ovary and uterus.
3. Supports and help to regulate the endocrine (glandular/ hormonal) system.
4. Reduces levels of stress hormones in the blood stream.
5. Adapts poses according to the woman's monthly menstrual cycle.
6. Opens two way communication channel between mind and body
7. Increases 'apana' or the downward flowing energy in the body and 'samana', the digestive and absorptive energy in the body.
8. Builds life force energy (prana) in the body.

CONCLUSION- Menstruation is an integral part of every woman's life cycle influencing the physical, mental, emotional health and quality of life. Unfortunately, women's health is not much attended in society. Many menstrual disorders including dysmenorrhea go unrecognized and untreated. With women's health gaining increased attention, several cost-effective, alternate salubrious interventions are being investigated to treat the women's health disorder. A significant amount of literature supports the benefits of Yoga (*asanas/pranayama*) in reducing the dysmenorrhea.

REFERERANCES-

1. Sabar UJ. The effect of prostaglandins in myometrial tissue; a functional and lipidomic study. The influence of the hormonal milieu on the functional response to prostaglandins and ex vivo lipid biosynthesis in myometrial tissues (Doctoral dissertation, University of Bradford).
2. Kamath AJ, Nalini M. The Mystery behind Relaxation Therapy: Adieu to Premenstrual Syndrome.
3. Bergsjø P. Socioeconomic implications of dysmenorrhea. *Acta Obstet Gynecol Scand.* (1979) 58(sup87):67–8. 10.3109/00016347909157793 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
4. Maia H, Jr, Casoy J. Non-contraceptive health benefits of oral contraceptives. *Eur J Contracept Reprod Health Care.* (2008) 13(1):17–24. 10.1080/13625180701712745 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

5. Lewers D, Clelland JA, Jackson JR, Varner RE, Bergman J. Transcutaneous electrical nerve stimulation in the relief of primary dysmenorrhea. *Phys Ther.* (1989) 69(1):3–9. 10.1093/ptj/69.1.3 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
6. Woodyard C. Exploring the therapeutic effects of yoga and its ability to increase quality of life. *Int J Yoga.* (2011) 4(2):49–54. 10.4103/0973-6131.85485 [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
7. Li X, Guo S, Chen Z, Ren K, Zhang H, Yu S, et al. Regulation of mild moxibustion on uterine vascular and prostaglandin contents in primary dysmenorrhea rat model. *Evidence-Based Complementary Altern Med.* (2021) 2021:9949642. 10.1155/2021/ [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
8. Hawkey CJ. Nonsteroidal anti-inflammatory drug gastropathy. *Gastroenterology.* (2000) 119(2):521–35. 10.1053/gast.2000.9561 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
9. 7. Text Book of Gynaecology, Datta D.C, New Central Book Agency Pvt Ltd Calcutta, edition 6th , 2004.
8. Jeffcoats Principles of Gynecology, Pratap kumar and Narendra Malhotra ,Jaypee Brothers Medical Publishers , 7th edition 2008
9. New Horizons of Yoga & Tantra, Dr.Ramandas Mahatyagi, Chaukambha Orientalia Varanasi, 1st edition 1998
10. yogic cure for common diseases. Dr.phulgenda Sinha, orient paperbacks, 1st edition 1976
11. Mahilansathi yogasane, V.G Devkule. Utkarsh prakashan, 4th edition 1982
12. Hatyogpradipika Pandit Hariprasad Tripathi, Chaukambha Krishnadas Acadaemy, Varanasi, 1st edition 2006.
13. Arogya ani yog, dr. Dhananjay gunde, G.J.G yog academy, kolhapur