

STUDY THE EFFECT OF ASANAS WITH LIFE STYLE CHANGES IN THE MANAGEMENT OF PRIMARY DYSMENORRHEA

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ABSTRACT

Pain is an unwanted experience that can affect the individual experiencing it negatively depending on its intensity, location, quality and duration. One of the causes of pain among women is dysmenorrhoea. Dysmenorrhoea can be defined as pain during menstruation. A significant population of women experience mild, moderate or severe pain during menstruation. The present study to find out the effect of Asanas with life style change in the management of primary Dysmenorrhea. 3-month study has been done to observe the effect of intervention. 15 girls with dysmenorrhea were studied. After the study period of 3 month, a follow up was done for duration for 3-month in which the assessment was done using lower abdominal, this

and back pain, fatigue, nausea.

KEYWORD: Primary dysmenorrhea, Asanas, life style changes.

INTRODUCTION

Menstrual disorders are a common presentation by late adolescence, 75% of girls experience some problems associated with menstruation. 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.^[1] 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.^[2]

Primary Dysmenorrhoea is the most common gynaecologic disorder among female adolescents, with a prevalence of 60% to 93%. Several Studies have shown that adolescents with primary dysmenorrhoea report that it effects their academic performance, social and sports activities and is a cause for school absenteeism.^[3] Dysmenorrhea is a critical global health issue in reproductive age women, as it causes school absence, poor academic performance, lost work time, and has a significantly negative affect on daily activities.^[4,5] Dysmenorrhea is generally defined as difficult monthly flow and describes painful menstruation of uterine origin.^[6]

Dysmenorrhea can be classified into two subtypes. The pathogenesis of primary dysmenorrhea is commonly explained by an abnormal increase in vasoactive prostaglandins originating in secretory endometrium and menstrual fluid, which may induce myometrial hyperactivity and uterine tissue ischemia and pain. In addition, various psychological problems have also been proposed. Secondary dysmenorrhea can occur many years after menarche and is associated with identifiable pelvic pathology such as endometriosis.^[7,8] Dysmenorrhea is characterized by cramping lower abdominal pain that may radiate to the lower back and upper thighs and is commonly associated with nausea, headache, fatigue, diarrhoea, lethargy, breast tenderness and emotional symptoms.^[9]

Dysmenorrhea is usually treated with drugs such as oral contraceptive pills or non-steroid, anti-inflammatory drugs. A variety of alternatives for dysmenorrhea, such as transcutaneous electrical nerve stimulation, acupuncture, acupressure, topical heat, behavioural interventions, relaxation and herbal and dietary therapies, are increasingly growing in attention.^[10]

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.^[11] Yoga may be a safe and cost-effective intervention for managing menstrual problem. 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.^[12]

Ayurvedic view

According to Ayurvedic classics the blood is accumulated in the uterus and then discharged as “aartava”^[13] kashtartava means kashten pravartanam. Kashta means painful, difficult, troublesome whereas kashten means with great difficulty.^[14] means pravartan of aartava with great difficulty. In Ayurvedic classics kashtarva is described as a symptom of various yonivyapadas specially udavarta,^[15] vataja,^[16] sannipatika,^[17] antarmukhi,^[18] vipluta,^[19] etc. According to Ayurveda, pain is due to aggravation of vata dosha^[20] and aggravation of vata dosha is due to three main factors. These are obstruction in the passage i.e. margavrodha, loss of body tissue.e. dhatukshaya^[21] and vata prakopak aahara-vihara. According to Maharshi Charaka in udavartini yonivyapada, apana vayu pushes the raja i.e. blood in upward direction and causes pain, discomfort in menstruation. The women feel comfortable after discharging the menstrual blood.^[22,23] This symptoms is appear to be nearer to primary dysmenorrhoea.

AIM

The main aim of the article is how study the effect of asanas with life style change in the management of primary dysmenorrhea.

OBJECTIVES

1. To study the concept of *primary dysmenorrhea*.
2. To study importance of *asanas in primary dysmenorrhea*.

METHODOLOGY

Recommended Asanas for *primary dysmenorrhea*

Time Schedule: Daily morning at 6 to 7 am.

Procedure Schedule (33 min.)

Asana

1. prarthana: for 2 min
2. breathing awareness before Asana: for 3 min
3. *Time for Ustrasana: 5 min.*
4. *Time for Dhanurasana: 5 min.*
5. *Time for Matsyasana: 5min.*
6. *Time for vajrasana: 5 min.*
7. *Time for Shavasana: 5 min.*
8. *Breathing awareness and after Asana: for 3 min*

All above Asanas procedures should be done in morning hours before breakfast.

Probable mode of action of Asanas

Yoga: There is growing association between psychosocial stress and menses associated health problems suggesting that stress may affect menstrual function. *Yoga* balances both the mind and body. The research study suggests that *yoga* helps to control the stress and pain of dysmenorrhoea. According to research studies *yoga* has been to be an effective method which reduces pain in dysmenorrhea. Various types of asanas to reduce pain in dysmenorrhea are as follows.^[24,25,26]

Ushtrasana

It is also called as camel pose. It is a very deep backward bend performed in a kneeling position. A deeper stretch can be achieved by separating the knees slightly wider at the outside.

This asana stretches the front of the body, ankles, thighs, abdomen, and chest. It stimulates the abdominal organs increases the blood flow to the uterus helping to heal it faster.

It also relieves back ache and to relax the body.

Dhanurasana

It is also called as bow pose. The women should lie in prone position and grasp the feet to lift the leg and chest to form a bow. Remain in this position for some time and then return to previous position.

The asana stretches the entire front of the body and give extra stretch to ankles, thighs, abdomen, chest, throat and the muscles of the buttocks.

It stimulates the organs of the abdomen. This stimulation helps ease cramps and regulate the flow of blood to and from the uterus thus relieving the pain.

Matsyasana

It is also called as fish pose. The women lie on her back and lift the head by rising up on the elbows and drawing the shoulders back. The neck is lengthened and the crown of the head pointed towards the wall.

It stretches out the muscles of the back, neck, chest and legs giving instant relief from muscle aches and pain associated with menstruation.

Vajrasana

It is sitting *asana* in *yoga*. It is kneeling position sitting on the heels.

The women sit on the heels with the knees beneath the thighs. There is four finger gaps between the kneecaps and the first toe of both the feet touch each other and sit erect.

This *asana* alters the flow of blood and nervous impulses in pelvic region and strengthens pelvic muscles, alleviating menstrual disorder.

Shavasasana

Basically, *Shavasana* relaxes the whole physiological and psychological system of the body. It aims at slowing down the breathing rate to improve the exchange of oxygen and carbon dioxide in the lungs as well *asanas* to induce mental tranquillity. All the tension, stress, problem etc. are flowing out via the exhaled breath. Also, this is a meditation procedure and it calms the mind, reduces stress and emotional tension.

Life style changes: At present time, the families are undergoing rapid changes due to the increases pace of urbanization and modernization. In IT sectors and basically in all working fields, the women go through job stress, working load, inappropriate dietary habits, sleeping time etc. In today's sedentary life women have to play multiple role which causes adverse effects on women's mental and physical health including menstrual disorders, insomnia, loss of appetite etc. Therefore, to tackle these challenges regarding to menstrual disorder *Ayurvedic* classics described "*rajaswala paricharya*".^[27,28,29] The *rajaswala paricharya* helps women adapt well to the physiological changes taking place in the body during the menstruation and thus prevent occurrence of diseases.

Do's

- Exercise regularly
- Ensure sound sleep for at least 6 -8 hours
- Maintain proper hygiene

Don'ts

- Avoid hot, spicy and salty food.

- Avoid fast running, excessive talking and laughing to avoid exertion and vitiation of *vata dosha* and to restore energy of *rajaswala* during menstruation.
- Avoid sleeping during day time to prevent vitiation of *kapha* and *pitta*.
- Avoid coitus during menstrual period as it causes abnormalities in the child impregnated during this period.
- Avoid smoking and alcohol
- Reduce caffeine intake

According to *Aacharya Sushruta*, if the women fails to follow the *rajaswala paricharya*, there are chances of development of congenital anomalies in the childlike blindness, abnormality of vision, deafness, baldness, Insanity, nails deformity, menstrual abnormalities etc.^[30]

Diet

Eat healthy, fresh and warm food.

Eat meal made of ghee, shali rice, milk, barley etc.^[31]

Eat more leafy vegetables that includes fibres.^[32]

Take fresh fruit like plums, grape apples, pomegranates etc.

As research studied shows that ginger is effective in reducing the severity of menstrual cramps-regularly use ginger in food preparation.^[33]

Take supplements like calcium, magnesium, vitamin E, B6, B12.

Avoid high fat and sugar.

Research studied shows that *rajaswala paricharya* helps women to respond healthily to the drastic physical and psychic changes during the menstrual cycle. It is also helpful in relieving most of the associated symptoms of menstrual cycle.^[34]

MATERIAL AND METHOD

For this case study 15 patient of primary dysmenorrhea are selected.

Criteria for selection of patients

Inclusion criteria

1. Age 13-25 years.
2. Volunteers will be selected for study.
3. Patient having symptoms of primary dysmenorrhea are selected for study that is

- a) Lower abdominal pain
- b) Thigh and lower back pain
- c) nausea/Vomiting
- d) Fatigue
- e) Diarrhoea

Exclusive Criteria

- 1) Married women.
- 2) Patient having secondary dysmenorrhea.
- 3) Patient having other systemic disorders.

Withdrawal criteria

The patient can be withdrawn from the trial if-

- 1) Occurrence of serious adverse events.
- 2) The protocol has been violated or a patient has become uncooperative.
- 3) The patient is not willing to continue the trial or to follow the assessment schedule.

Evidence of any intercurrent illness which may interrupt the treatment regime and efficacy of drug.

Overall Assessment Criteria

Table 6: Shows overall assessment criteria.

Sr. No.	Statistical improvement	Result
1.	No results in parameters	No improvement
2.	Result in 1- 2 parameters	Mild improvement
3.	Result in 3 – 4 parameters	Moderate improvement
4.	Result in 5, 6 parameters	Marked improvement

METHODS AND MATERIALS**Sample size**

Effect of asanas with life style changes in the management of primary dysmenorrhea.

Period of trial: Total 90 days period.

Follow up

- 0th day & 90 days

Collection of data with the help of complete CRF - with follow-up.

Place of study

OPD of the Institutional Hospital.

Overall Assessment of Therapy

On the basis of percentage relief in sign, symptoms and investigation reports further scores have been allotted. To establish the results statistically each sign & symptom may be given a specific score:

Subjective criteria

1. fatigue
2. nausea
3. Diarrhoea
4. lower abdominal thies and back pain.

Grading and scoring: Fatigue, Nausea/vomiting, Diarrhoea, Lower abdominal this and back pain.^[35]

1. Fatigue

Sr.no.	Observation	grade
1.	No fatigue	0
2.	Fatigue occasionally on doing heavy work	1
3.	In carrying out routine work	2
4.	Even without doing work	3

2. Nausea/vomiting

Sr.no.	Observation	grade
1.	No vomiting at all	0
2.	Frequency of salivation	1
3.	Feels sense of nauseating and vomits occasionally	2
4.	Frequency of vomiting is two or three times and comes whenever pain is aggravated	3
5.	Frequency of vomiting whole day	4

3. Diarrhoea

Sr. no.	Observation	grade
1.	1-2 times /day	0
2.	3-5 time/day	1
3.	6-8 time/ day	2
4.	More than 8 time /day	3

4. Lower abdominal this and back pain

Sr.no.	Observation	grade
1.	Menstruation is not painful	0
2.	Menstruation painful but daily activity is not affected and no need of analgesic	1
3.	Daily activity inhibited, need to take analgesics	2
4.	Daily activity inhibited, pain continue after administration of analgesics	3

OBSERVATION AND RESULT

Effect of therapy on Subjective Parameters by applying **Wilcoxon's Singed Rank Test-**

1. Fatigue

	Mean	SD	SE	Wilcoxon's singed rank test-	P value
BT	1.867	1.302	0.3362	36.00	0.0083
AT	1.267	1.163	0.3003		

At the end of therapy, its P value is 0.0083 which is statistically significant.

2. Nausea

	Mean	SD	SE	Wilcoxon's singed rank test	P value
BT	2.067	1.163	0.3003	36.00	0.0104
AT	1.333	1.113	0.2873		

At the end of therapy, its P value is 0.0104 which is statistically significant.

3. Diarrhoea

	Mean	SD	SE	Wilcoxon's singed rank test	P value
BT	1.200	1.014	0.2619	45.00	0.0048
AT	0.5333	0.6399	0.1652		

At the end of therapy, its P value is 0.0048 which is statistically significant.

4. Lower Abdominal Thies and Back Pain

	Mean	SD	SE	Wilcoxon's singed rank test	P value
BT	1.467	0.9904	0.2557	21.00	0.0197
AT	1.067	1.033	0.2667		

At the end of therapy, its P value is 0.0197 which is statistically significant.

DISCUSSION

The symptoms of fatigue, nausea, Diarrhoea, lower abdominal thies and back pain. is lowered because the action of therapy. No side effects were observed during the present study.

CONCLUSION

Menstrual bleeding accompanied with pain is called as dysmenorrhoea i.e. rajkricchata. Dysmenorrhea is a condition in which is discharge of blood from yoni with difficulty.

Menstrual bleeding is the function of apana vayu. Apana and vyan vayu may be vitiated due to mithya aahara, vihara, veg dharana, margavrodha or dhyatykshaya which leads to vata vrudhi, apana vayu aggravated and moves in reverse direction leading into pratilomagati of rajasa and results into kashtartava. Vitiating and vilom gati of apana vayu is the main factor for kashtartava. So, there is imbalance of the dosha and this imbalance of dosha can be corrected by proper diet i.e. vatshamaka aahara, herbal preparation, yoga and with the use of panchkarma chikitsa and also by modern science.

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