

## PRIMARY DYSMENORRHEA AND EXERCISES

\*Mrs K. Renuka & \*\*Dr. S. Jeyagowri Subash

### Introduction

Dysmenorrhea is pelvic pain associated with the bleeding phase of the menstrual cycle (painful menses) or just before menses. Dysmenorrhea begins few hours before or after the onset of menstruation and lasts for 24-48 hours

### Prevalence

It affects about 90% of women worldwide and typically first presents in adolescents. The prevalence of dysmenorrhea in different parts of the world on an average is 72.96% in India and Iron showed that 85.5% in Rajasthan, 71% in Tehran, 73.2% in Gilan, 40.7% in Delhi, 14 % in Gambia, 73% in U.S.A, 42.2% in Thailand, 58% in Nigeria, 52.2% in the Mexico City, and 66.54% in Tamil Nadu. Approximately 10% of girls are incapacitated for 1-3 days each month.

Dysmenorrhea can be classified into **primary** and **secondary** dysmenorrhea. Primary dysmenorrhea is defined as painful menstruation associated with normal pelvic anatomy. Secondary dysmenorrhea is defined as painful menses associated with pelvic pathology, for example, endometriosis (the presence of endometrial tissues outside uterine cavity). Most patients are categorized into primary dysmenorrhea. Primary dysmenorrhea is **caused** by the release of prostaglandins with menses, which is secreted during the luteal phase and subsequent menstrual flow. One likely mechanism for increasing prostaglandins is that, during premenstrual phase, progesterone decreases which results in the synthesis of prostaglandins in endometrial cells by membrane phospholipids. Excessive release of prostaglandins increase the

amplitude and frequency of uterine contraction and causes vasospasm of the uterine arterioles. Resulting in ischemia and cyclical lower abdominal cramps .

Primary Dysmenorrhea refers to complex symptoms that may encompass nausea, vomiting headache, nervousness, fatigue, diarrhea syncope, lower abdominal cramping, bloating, breast tenderness ,mood changes, backache and dizziness These symptoms often appear just before ( 24-48hours)or at the onset of menstruation and are maximal during the first 48 hours

**Dysmenorrhea is a common problem in adolescent girls, it begins when young girls experience their first menstrual adultery cycles. Its prevalence increases during adolescence aged 15-17 years and reaches to its highest in 17-22 years and decreases progressively thereafter.**

Pain is usually located in the supra pubic area or lower abdomen. Women describe the pain as either sharp, cramping or gripping or as a steady dull ache which may radiate to the lower back or upper thighs

### Dysmenorrhea and Adolescent life

Primary dysmenorrhoea is associated with high levels of absenteeism from school and work and an overall loss of quality of life. Among adolescent girls, dysmenorrhoea is the leading cause of recurrent short-term absenteeism from school. Among young college-aged girls, 42% of the subjects reported absenteeism or loss of activity on at least one occasion. Adolescent girls with primary dysmenorrhoea estimate absenteeism levels from school or work to be 34-50%.

### Role of Exercises

Exercises have been found to help in relieving menstrual discomfort through increased vasodilation which subsequently decreases ischemia .

Exercise relieves cramps because it helps to release beta-endorphins, which are internal opioids our own **human morphine**. It

produces analgesia [pain relief] and helps to burn the prostaglandin chemicals released during menstruation that cause muscle contractions much faster. The best form of exercise for relieving menstrual pain .is the aerobic exercise something that gets our heart rate up, such as brisk walking, running playing tennis playing team sports, swimming and so on. "The important thing is that you should do it at least three times a week, for 30 minutes at a time".

### Menstrual cramps and Exercises

#### Pelvic Stretching

Pelvic stretching-exercises are another way to alleviate menstrual pain. The specification of the exercises are as follows Lie on the floor on your back. Slowly raise both of your legs into the air. Hold the position for a few seconds. Slowly bring down your legs and then your knees as you return to your original resting position. Hold the position for 7 seconds and relax 30 seconds. Repeat 5 times

#### Pelvic rocking

Pelvic rocking exercise helps to relieve back pain by strengthening your stomach muscles and improving blood flow to the uterus. Get down on your hands and knees. keep your arms straight. Tilt our hips under as you tighten your pelvic muscles, hunching your back slightly. Lie on your back with your feet flat on the floor. Tighten your buttocks and the muscles in your lower abdomen. While pressing the small of your back on to the floor. Hold position 7 seconds and relax30 seconds repeat 5 times.

#### Kegel exercise

It helps to strengthen the pelvic floor muscles there are three simple exercises (a) **Kegel exercise** -Squeeze the pelvic muscle for 10 seconds and relax it for 10 seconds stop after repetitions. Repeat this exercise three times in a day

(b)**Flutter exercise** – Squeeze the pelvic muscles and relax it as quickly as possible for 10 contractions. It is recommended 3times a day

(c)**Subtle exercise** - first exercise, except that with the imagination that the person is sucking and holding tampon in the vagina for 10 seconds and release the contraction. Relax for 10 seconds stop. 10 repetitions.

**Mosher exercises** - for dysmenorrhea such as, hook lying: breathing; standing: rising toes; standing : deep knee bending; hook lying: knees on chest.

#### Progressive Muscle Relaxation

Doing progressive muscle relaxation exercises can be very helpful for women to counteract cramps and tensing their muscles. To do this, focus on one part of the body at a time; start with the feet, legs, buttocks, and hips, then move into the back, arms, shoulders, neck and face. When moving your concentration to different parts of the body, alternate between tensing and relaxing which helps increase the blood circulation and makes the heart rate and breathing more even

#### CONCLUSION

Adolescent girls and young women suffer from moderate to severe dysmenorrhea and discomforts during menstruation. Exercise are the simple effective non pharmacological measures with no side effects to reduce dysmenorrhea.

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