

**CRITICAL REVIEW OF PAIN IN PRIMARY DYSMENORRHOEA**

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ABSTRACT

Menstruation is the unique identification of womanhood which occurs around 12 years of age. The shedding of endometrium is called as menstruation. The unpleasant feeling that the part of the person's body is hurt is called as pain. The pain during the menstruation is called as Dysmenorrhoea. In Ayurvedic classics the Udavarthini Yonivyapat is considered as dysmenorrhoea due to typical feature "pain and Discomfort" during the menstruation. Due to the upward movement of Vata, there is difficult in passage of blood out of the Garbhashaya leading to pain in Udavarthini, and immediately after the proper flow of blood is established, the pain will be relieved. But what according to modern science? Dysmenorrhoea is of two types- Primary and

Secondary. The pain is different in both types of Dysmenorrhoea in terms of onset, nature, and cause. Thus the importance of critical analysis of pain in dysmenorrhoea arises.

INTRODUCTION

Dysmenorrhoea means painful menstruation. But a more realistic and practical definition includes cases of painful menstruation of sufficient magnitude so as to incapacitate day to-day activity.^[1] These are of two types- Primary and secondary dysmenorrhoea.

Primary Dysmenorrhoea: The incidence is about 15-20%. The causes of pain are-

1. Due to Psychological factors like tension, anxiety etc in adolescence.
2. Abnormal anatomical and functional aspect of myometrium.

3. Imbalance in the autonomic nervous control of uterine muscles.
4. Increased secretions of Prostaglandin in Ovulatory cycles.
5. Increased release of Vasopressin during Dysmenorrhoea.
6. High concentration of Platelet activating factors (PAF) during menstruation.
7. Increased myometrial smooth muscle contractions during menstruation.

Description of pain

1. Pain usually occurs within 2years of Menarche.
2. Mother or her sister may be Dysmenorrheic.
3. Pain begins few hours before or just with the onset of menstruation.
4. Pain may last for few hours or may extends till 24hours.
5. Spasmodic type of pain.
6. Confined to lower abdomen.
7. May radiate to the back and medial aspects of the thigh.
8. Systemic discomforts like nausea, vomiting, fatigue, diarrhoea, headache may be associated.
9. Vasomotor changes like pallor, cold sweats, fainting may be seen.

Secondary Dysmenorrhoea: The pain associated with the menstruation occurring due to presence of Pelvic pathology.

Causes of pain are-

Due to premenstrual pelvic congestion or increased vascularity due to presence of pelvic pathologies like-

1. Endometriosis and Adenomyosis.
2. Pelvic adhesions
3. Uterine fibroid.
4. IUCD in utero.
5. Cervical stenosis.
6. Endometrial polyp.
7. Chronic pelvic infection.

Description of pain

1. Dull pain.
2. Pain situated in back or front without radiation.
3. Usually appears 3-5days prior to menstruation.

4. Relieves with onset of bleeding.
5. No associated systemic discomfort associated with the pain.

PAIN

The international Association for the study of pain (IASP) defines pain as “unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.” There are two types of pain according to Mechanism- Nociceptive (Physiological) and Neuropathic(pathological). Nociceptive pain are of two types Acute and Chronic. Acute pain again categorised into Somatic and visceral. Pain in Primary dysmenorrhoea is mainly Nociceptive acute visceral pain.

PATHWAYS OF UTERINE PAIN^[2,3]

- ❖ Any stimulus that excites pain nerve endings in diffuse areas of the viscera can cause visceral pain.
- ❖ Such stimuli include ischemia of visceral tissue, chemical damage to the surface of viscera, spasm of the smooth muscle of a hollow viscus, excess distention of hollow viscus and stretching of connective tissue surrounding or within the viscus.
- ❖ Pain from the body of the uterus is conveyed by the sympathetic (T12 and L1) via the presacral nerves, whereas pain from the cervix uteri is conveyed by the parasympathetic via the pelvic splanchnic nerves (S2, S3, S4).Therefore, in intractable spasmodic Dysmenorrhoea, section of the presacral nerves gives relief from the symptoms.
- ❖ Although it recognized that the uterine muscle is largely under hormonal control, sympathetic innervations may cause uterine contraction and vasoconstriction, whereas parasympathetic fibers have the opposite effect.

WHAT IS THE MAIN CAUSE OF PAIN IN PRIMARY DYSMENORRHOEA?

Yes....it is due to uterine contractions.

Uterine contraction^[4] is muscle contraction of uterine smooth muscle. These contractions are also termed as endometrial waves or contractile waves. These are present throughout menstrual phase-

- a. Follicular phase: The contraction is in low amplitude of 30mmHg which occurs once or twice per minute and lasts for 10-15 seconds.
- b. Ovulation: The frequency of contraction increases to 3-4 per minute.
- c. Luteal phase: The frequency and amplitude decreases, may be to felicitate the implantation.

- d. Menstruation: If implantation doesn't occur, the frequency remains low but the amplitude increases to about 50-200mmHg producing Labour like contraction called as menstrual cramps. These are generally less painful compared to the labour contractions.

The changes in directions of uterine contractions are also hypothesized due to shift in the myosin expressions of uterine smooth muscles.

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