

Dysmenorrhea

Pain associated with menstruation; 1 day before- 2 days after
50%-70% of women experience some degree of pain
10% are incapacitated (severe pain that is disabling)

Classification#:

- 1- Primary dysmenorrhea; painful menstruation in absence of pelvic pathology
- 2- 2nd dysmenorrhea ; Painful menses secondary to underlying organic disease of the pelvic organs.
 - a. Occur all through cycle
 - b. 30-40 old lady mostly affected
 - c. Associated with dyspareunia
 - d. Pain extend 7 days before to 7 days after.

Primary dysmenorrhea;

- Risk factors;
 1. Early menarche, long heavy menstrual flow.
 2. Parity; The incidence of dysmenorrhea is lower in multiparous women.
 3. Diet; Lower consumption of fish, eggs and fruits are believed to increase the incidence of dysmenorrhea .
 4. Exercise; reduce pain, among athletes incidence is lower, probably due to anovulatory cycles.
 5. Smoking; increase duration of pain
 6. Psychological; Emotionally dependent and overprotected girls are more likely to develop dysmenorrhea. seen in girls whose mothers suffered from dysmenorrhea, which thereby makes the young girl more conscious. (not genetic, but makes girl more aware and afraid)
- Various theories behind dysmenorrhea;
 1. **Prostaglandin theory**; most accepted one
 - PGF₂ is a potent vasoconstrictor and causes increased myometrial contractility.
 - PGE₂ increases the sensitivity of the nerve endings.
 - PGI₂ causes vasodilatation, decreases prior to menstruation leading to ischemia.
 - Evidence of this theory; prostaglandin synthases inhibitors relieve dysmenorrhea (NSAID).
 2. **Hormonal/endocrine theory**; dysmenorrhea is characteristically seen in ovulatory cycles.
 - Evidence to support;
 - Anovulatory cycle are usually painless
 - Dysmenorrhea starts 1-2 years after menarche
 - OCP improves dysmenorrhea
 - PG concentration is high in secretory phase
 3. **Myometrial contractility**; uterine hyperactivity stretches nerve fibers causing pain.
 4. **Myometrial ischemia**; spiral arteries vasoconstriction before menses lead to ischemia causing pain.
 5. **Uterine abnormalities**; imperforated hymen, redundant uterine horn.
 6. **Psychological**; dysmenorrhea is proven to be physiological.
 7. **Combination of the above**

Dysmenorrhea

- Pathogenesis
 - Pain pathway of uterus; nerve fibers pass through T10,T11, T12, L1
 - Referred to lower abdominal wall, groin, thighs , sacral area, buttocks
 - Pain pathway of cervix; S2,S3,S4
 - Referred to lower sacral area and buttocks
- Clinical features:
 - Younger women
 - Onset 2-3 years after menarche
 - Start prior to menses (1-2 days)
 - Cramping pain
 - Examination ; normal
 - Other symptoms; nausea, vomiting, diarrhea, fatigue, headache
- Management;
 - Based on severity
 - General measures; life style modification (exercise,reassurance, diet, psychotherapy)
 - Specific measures;
 - Medical management;
 - Hormonal; combined OCP, IUD to convert into anovulatory cycle.
 - Nonhormonal;
 - NSAIDs; fenamic acid, indomethacin, naproxen, ibuprofen. Used prior to menses and continued 5 days after.
 - CCB; nifedepine, verapamil,etc. relax uterus.
 - Beta adrenergic; increase blood flow , decrease ischemia
 - Surgical management; not commonly done except in severe cases.
 - Conservative surgeries; cervix dilation, inject alcohol into pelvic plexus (rarely practiced)
 - Radical ; resection of hypogastric nerve(cottes operation, sympathectomy) , uterine nerve ablation

****Recent advances in Management****

1. Laser presacral neurectomy.
2. Lysine clonixinate for treatment of primary dysmenorrhea: this is a newer NSAID given in a dose of 125 mg tablets 4 times a day. It acts like an analgesic and antispasmodic.
3. Sublingual pirixican: in a fast in a dissolving form tablet has been used with minimum side and good efficacy.
4. Transdermal glyceryl trinitrate acts by relieving myometrial contractions and thus acts as a uterine relaxant.
5. Rofecoxib a specific cyclooxygenase 2 inhibitor in a dose of 25-50 mg every 24 hours inhibits prostaglandin synthesis.

Secondary Dysmenorrhea

- Painful menses secondary to pelvic disease;
- Etiologies; too many
 - Endometrial polyps, adenomyosis
 - Infection
 - Endometriosis
 - Ovarian cyst
- Clinical features;
 - Older women 3rd-4th decade
 - Previous hx of painless menses
 - Continuous dull pain
 - Associated with dyspareunia, infertility, bleeding
 - Examination; abnormal depending on underlying cause, try to look for anemia.
- Management;
 - CBC, urine analysis, stool examination, etc
 - Specific investigation; U/S, Hysteroscopy, D&C, laproscopy for adhesions.

Dysmenorrhea

- Treatment; based on cause
 - Medical ; NSAIDs , OCP
 - Surgical; laparoscopy, cystectomy for ovarian cyst, etc

Premenstrual syndrome (PMS)

- Definition; The regular, temporally, cyclic appearance of one or more of a large constellation of system related to luteal phase! Interfering with function(work ,relationship) and not attributed to other psychiatric disease.
- It is a spectrum ranging from mild to severe premenstrual dysphoric disorder
- Evidence suggest neuroendocrine disorders related to serotonergic dysfunction.
- They have discrete diagnostic criteria by American psychiatric association.
- Clinical features;
 - Somatic symptoms; breast tenderness, headache, weight gain, abdominal bloating(most common symptom90%)
 - Affective symptoms; depression, anxiety, social withdrawal, etc.
- You should rule out other diseases with physiological or psychological.
- Most women seeking care for PMS have symptoms not related to the timings of menstruation.
- Women must record symptoms rating daily for at least 2-3 cycles before diagnosis.
- Treatment;
 - Life style modification; exercise, smoke/ caffeine elimination, etc.
 - Dietary supplements; multi vitamins
 - Hormonal ; OCP, transdermal oestradiol, progesterone.
 - Other; danazol, GnRH agonist, spironolactone
 - **SSRI is the first line in moderate to severe PMS, used throughout the cycle or during luteal phase only.**
 - **Treat other somatic symptoms; for edema give diuretics, for breast tenderness give dostinex(cabergoline)**

(إن الله يحب إذا عمل أحدكم عملاً أن يتقنه)