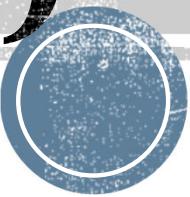


Primary Dysmenorrhea (Painful Menses)

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Disclosure Slide

- I am a Nexplanon speaker and trainer for Merck/Organon.



Objectives

- Understand the differences between primary and secondary dysmenorrhea
- Review treatment options available for patients



Case Presentation

- 16 yo F presents to clinic for a sports physical
- During history discussing her menstrual periods and she discloses that periods are very painful that she often misses school or swim practice during the first couple days of period
- Started menses at age 14- irregular for about one year but now coming every 21-29 days. Cramps start just before period does and has painful lower abdominal cramping for the first 1-2 days. Period lasts 5-6 days. Goes through about 3-4 pads on the heaviest day. Has tried heating pad with some good relief and ibuprofen some relief.
- Denies sexual activity



Epidemiology

- Early investigators believed that dysmenorrhea occurred in “maladjusted women who were intensely rejecting their feminine role and who suffered from deep hostility”
- No published data looking at dysmenorrhea until 1970
- Prevalence among adolescent females ranges from 60-93%
- May report that it interferes with daily activities like school, sporting events and other social activities but only 15% seek out medical advice



School absenteeism



Inability to
participate in sports



Inability to do
household activities



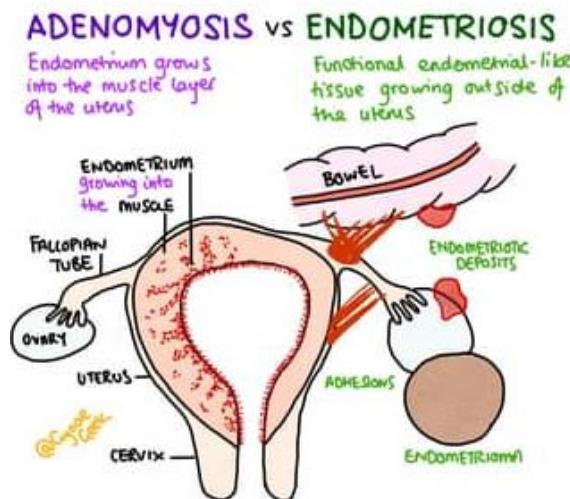
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Definitions

Primary Dysmenorrhea

- Presence of recurrent, crampy lower abdominal pain that occurs during menses in the absence of other disease that could account for these symptoms
- Think: intrinsic and early onset



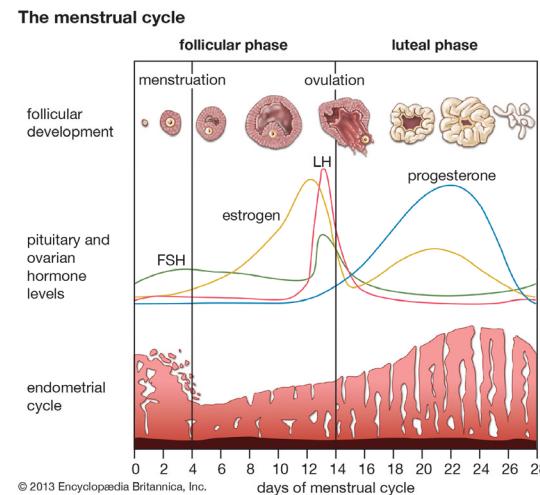
Secondary Dysmenorrhea

- Similar clinic features to primary dysmenorrhea but due to another underlying disorder like:
 - endometriosis
 - adenomyosis
 - intrauterine/pelvic adhesions
 - ovarian cysts
 - pelvic inflammatory disease
 - inflammatory bowel disease
- More common in 4th or 5th decades of life but can occur during adolescence
- Think: due to another physiologic cause (extrinsic) and later onset



Mechanism

- Symptoms start with ovulatory cycles
- Progesterone stimulates the production of prostaglandins (released when the functional layer of the uterus is sloughed)
- Excessive levels of prostaglandin F2 alpha (PGF2 alpha) produced in women with primary dysmenorrhea
- PGF2 alpha increased the force of uterine contractions → decreased blood flow to myometrium → ischemia → causes more pain and sensitizes afferent nerve fibers in the uterus making it more painful
- PGF2 alpha injected into circulation causes headaches, nausea, vomiting and diarrhea via stimulation of GI tract



Evaluation of Primary Dysmenorrhea

Menstrual History:

- Age of menarche
- Duration of bleeding
- Flow assessment
- Interval between periods

Regular cycles (2-7 days duration) intervals between 21-45 days suggestive of ovulatory cycles

Symptom History:

- Initial onset & progression over time
Ovulatory cycles- avg about 6 months after menarche
 - Relation of symptoms to period
Several hours prior to onset of menses and continue 1-3 days
 - Presence of nausea, vomiting, diarrhea, back pain, dizziness, fatigue and HA during period
 - Medication usage and effectiveness
Lack of relief suggest severe dysmenorrhea or other pathology
 - Impact on daily activities

Physical exam: abdominal exam unremarkable outside of menstruation. May have lower abdominal pain during period. Consider pelvic in sexually active females.

Sexual History:

- Current sexual activity and contraception
- History of STIs or PID



Diagnosis

Grade	Ability to Work	Systemic Symptoms	Analgesics
Grade 0: Menstruation is not painful and daily activity is unaffected	Unaffected	None	none required
Grade 1: Menstruation is painful but seldom inhibits normal activity; analgesics are seldom required, mild pain	Rarely affected	None	Rarely required
Grade 2: daily activity is affected; analgesics required and give sufficient relief so that absence from school unusual; moderate pain	Moderately affected	Few	Required
Grade 3: activity clearly inhibited; poor effect of analgesics; vegetative symptoms (HA, N/V, diarrhea); severe pain	Clearly inhibited	Apparent	Poor effect



Treatment Options: NSAIDs

- 80 % of women feel relief from cramping pain, backache, HA and blood loss
- Prostaglandin synthetase inhibitors
- Most effective when taken early in the course of symptoms; if have severe symptoms and regular menses can even start 1-2 days prior to onset of symptoms
- If patient fails one class of NSAIDs- reasonable to trial on another class because of differences in pharmacodynamics (ie ibuprofen vs naproxen)
- Take with food to minimize GI side effects



Treatment Options: Hormonal Therapy

- First line therapy option in sexually active patients; second-line for those who are not sexually active but fail to respond to or cannot tolerate NSAIDs
- Hormonal contraception suppresses ovulation thus decreasing uterine prostaglandin levels
- Amenorrhea induced by hormonal therapy is beneficial as well:
 - Continuous combined hormonal contraception
 - Depo Provera injection- approximately 50% of users are amenorrheic after 3rd injection
 - LNG-IUDs- will reduce blood loss and duration of bleeding over time



Treatment Options: Self-Care

- Exercise- body of evidence to support this as a treatment of dysmenorrhea. (Meta analysis of 11 trials reported reduced pain intensity and duration for those women that exercise vs any non exercise intervention) Type, duration and frequency remains unknown. Multiple health benefits to exercise and harm is low.
- Heat- application of heat to lower abdomen was effective for relief of dysmenorrhea. Similar efficacy to ibuprofen and more effective than acetaminophen. Can be cumbersome. May improve the efficacy of other treatments.



Back to the Case...

- Likely diagnosis is primary dysmenorrhea (Grade 2)
- Discussed regular dosing of ibuprofen and starting 1-2 days prior to onset of symptoms vs naproxen for dosing ease
- Also discussed OCPs as an option - wanted to discuss with family members



Questions?

