DYSMENORRHEA

Week 84

Prepared by: Devon Rupley, MD

Reading Assignment:
ACOG Committee Opinion No. 760: Dysmenorrhea and Endometriosis in the Adolescent
LEARNING OBJECTIVES

• Define primary and secondary dysmenorrhea
• Understand the pathophysiology of primary dysmenorrhea
• Review common treatments for dysmenorrhea
CASE VIGNETTE

A 14 yo P0 young woman presents for evaluation of painful periods. She underwent menarche 10 months ago. Her mother reports that over the past 3 months, she has been unable to go to school during her menses due to severe pain. Cycles occur every 3-4 weeks, and last 4-5 days with moderate bleeding, but significant pain the first 3 days of cycle accompanied by nausea and occasional vomiting. She feels well outside of her menses, and is otherwise healthy. Her LMP was 2 weeks ago.
FOCUSED HISTORY

• PMH: Mild intermittent asthma
• PSH: None
• OBH: None
• GYNH: Menarche 10 months ago at age 13, menses last 4-5 days with moderate bleeding, never sexually active, no cysts, fibroids
• FH: Father with HTN
• SH: 8th grade, no behavioral issues, lives with mother and 4 year-old sister, denies tob/etoh/ drug use
• Meds: Albuterol PRN
• All: PNC- hives
PERTINENT PHYSICAL EXAM FINDINGS

• VS: Wt 44 kg, Ht 158 cm, BP 90/62, P 82, T 37.0
  • Gen: NAD
  • HEENT: WNL
  • Chest: CTAB
  • CVS: RRR
• Breast: Bilateral breast tissue enlargement with secondary areola mound, consistent with Tanner Stage IV
• Abd: Soft, non-tender, no masses
• Ext Pelvic: Normal appearing external genitalia, Tanner Stage IV
• Ext: WWP
DYSMENORRHEA

• The presence of recurrent, crampy, lower abdominal pain occurring during menses
• Most common menstrual symptom among adolescent girls, with prevalence rate of 50-90%
• Leading cause of recurrent short-term school absenteeism
  • 12% of girls age 14-20 report lost school or work days each month due to dysmenorrhea
DYSMENORRHEA

• Primary Dysmenorrhea:
  • Painful menstruation in absence of pelvic pathology
  • Begins when adolescents attain ovulatory cycles usually within 6-12 months of menarche
  • Related to pro-inflammatory mediators, prostaglandins and leukotrienes

• Secondary Dysmenorrhea:
  • Painful menstruation due to pelvic pathology or recognized medical condition
  • Most common cause is endometriosis
  • Other causes:
    • Adenomyosis
    • Infection/ PID
    • Myomas
    • Mullerian anomalies
    • Obstructive reproductive tract anomalies
    • Ovarian cysts

https://en.wikipedia.org/wiki/Prostaglandin_F2alpha
RISK FACTORS

• What are the risk factors for dysmenorrhea?
  • Heavy menstrual bleeding- 4.7 odds ratio
  • Irregular menses- 2.0 odds ratio
  • Age <30 – 1.9 odds ratio
  • Sexual abuse -1.6 odds ratio
  • Menarche before age 12 – 1.5 odds ratio
  • Low body mass index – 1.4 odds ratio
  • Sterilization- 1.4 odds ratio
  • Smoking

• Protective factors?
  • Younger age at first childbirth
  • Use of hormonal contraceptives
  • Higher parity

https://www.aafp.org/afp/2014/0301/p341.html#afp20140301p341-b6
EVALUATION FOR PRIMARY DYSMENORRHEA

• What exams/tests do you start with?
  • History
    • Menstrual
    • Timing and quality of pain
    • Associated symptoms
    • Sexual history
    • Prior treatments
  • No need for internal exam unless patient is sexually active and concerned for infection or concerned for secondary dysmenorrhea
  • No imaging or labs needed
WHAT TREATMENT WILL YOU RECOMMEND?

• NSAIDs
  • Interrupt cyclooxygenase-mediated prostaglandin production
  • Most effective if started 1 day before menses and continued through first 2-3 days
• What are NSAID options?

Table 1. Nonsteroidal Antiinflammatory Drugs Used During Menstruation in the Treatment of Primary Dysmenorrhea in Adolescents and Young Adults

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ibuprofen</td>
<td>800 mg initially, followed by 400–800 mg every 8 hours as needed</td>
</tr>
<tr>
<td>Naproxen sodium</td>
<td>440–550 mg initially, followed by 220–550 mg every 12 hours as needed</td>
</tr>
<tr>
<td>Mefenamic acid</td>
<td>500 mg initially, followed by 250 mg every 6 hours as needed</td>
</tr>
<tr>
<td>Celecoxib†</td>
<td>400 mg initially, followed by 200 mg every 12 hours as needed</td>
</tr>
</tbody>
</table>

*For females older than 18 years
†Cyclooxygenase-2 specific inhibitor

HORMONAL TREATMENT OPTIONS

• What other options can be added?
  • Combined oral contraceptives
  • Vaginal ring or patch
  • IM medroxyprogesterone
  • Implant
  • LNG-IUS

• Mechanism of action likely related to prevention of endometrial proliferation and or ovulation—decreased prostaglandin and leukotriene production

• Can opt for continuous regimens or cyclical depending on patient preference

• Alternative therapies:
  • Exercise and heat therapy
  • Acupuncture
NEXT STEPS...

- Trial NSAIDS +/- hormonal agents for 2-3 months and reassess symptoms
- If persistent or worsening, initiate work-up for secondary dysmenorrhea

SOCIAL DETERMINANTS OF HEALTH

• Race/ethnicity does not appear to be associated with primary dysmenorrhea
• White race is seen as a risk factor for endometriosis, the leading cause of secondary dysmenorrhea
  • Possibly due to lower rates of diagnosis of endometriosis among black patients
• One study found that “lower number of formal years of education of mother” was associated with dysmenorrhea
• In some studies, higher income is associated with increased likelihood of severe dysmenorrhea
• No other sociodemographic data point (race, ethnicity, geographic area) has been consistently associated with rates or treatment for dysmenorrhea
Description: Dysmenorrhea management counseling

We discussed treatment for primary dysmenorrhea including trial of NSAIDS, and/or hormonal modalities with plan for re-evaluation of symptoms in 2-3 months. We also discussed possible supplemental therapies including heat, exercise, yoga, and acupuncture for symptom relief.
BILLING AND CODING

- N94.6- Dysmenorrhea, unspecified
- N94.4- Primary dysmenorrhea
EVIDENCE


