Educational Topic 49: Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD)

Rationale: PMS and PMDD involves physical and emotional discomfort. Effective management of this condition requires an understanding of symptoms and diagnostic methods.

Intended Learning Outcomes:

A student should be able to:

- Identify the criteria for making the diagnosis of PMS and PMDD
- List treatment options for PMS and PMDD

TEACHING CASE

CASE: A 37 year-old G3P3 married woman comes to your office for an "annual checkup." She has not seen a gynecologist for 2 years and states that she wants to establish a relationship with a physician in her new surroundings.

She reports having regular periods, although they have gotten somewhat longer in the past year or so. She complains of abdominal bloating, breast tenderness and muscle pain. These symptoms have worsened about 10 days before her cycle and they seem to resolve a week after her cycle ends. The patient does believe that her symptoms may get worse at different times of the month, but she has never been able to keep track of them long enough to know whether there is a specific cyclic pattern to these problems.

She is currently not sexually active and is taking no medications or supplements. All her pregnancies were delivered vaginally and she had the “baby blues” with the first pregnancy that lasted about 4 months. With the next two pregnancies she again had mood problems that lasted about a year. She did not seek any medical help. She states she was a “moody” teenager who was quite reclusive. She has had no treatment for depression in the past. She underwent an appendectomy as a child, and has no other medical conditions and is not allergic to any medications.

Her family history reveals that her mother suffered from depression. Her 40 year-old sister was recently diagnosed with breast cancer. Upon review of systems, she describes occasional constipation and diarrhea. She has difficulty sleeping...
and feels that she gets tired more easily than she should. She also reveals that she has difficulty falling asleep, often because she is thinking about what has happened during the day and/or what may be coming up the next day. The patient and her three children have recently moved to town, while her husband has remained in their previous city to fulfill his job obligation. This domestic separation has been going on for approximately 6 months.

On further questioning, the patient thinks that her jitteriness and sleeplessness have led to increased irritability with the children. She feels inadequate as a mother as she continues to lose her temper with the children over small issues. This has never been a problem in the past. She worries a great deal, particularly about her domestic situation and being separated from her husband. She has difficulty concentrating at her job (she works as a bank teller) and also feels that her memory is failing her. She has difficulty getting up in the morning and always feels tired. She feels quite hopeless about her situation and is worried that her husband may not join them in six months.

She saw a physician assistant in a primary care practice regarding these symptoms. He told her that he believes she has PMS.

On physical examination, the patient appears to be a bit nervous and startles easily as you enter the room. Her examination is otherwise entirely normal. General lab tests were performed and were normal.

COMPETENCY-BASED DISCUSSION & KEY TEACHING POINTS:

1. What diagnosis would you give this patient and why?
   - Patient most likely has PMDD
     - Symptoms include
       - Depressed mood
       - Anxiety
       - Increased feeling of possible rejection
       - Marked irritability
       - Difficulty concentrating
       - Fatigue
       - Insomnia
       - Somatic symptoms: bloating, breast tenderness, muscle pain

Comparison of PMS and PMDD

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<thead>
<tr>
<th>Diagnostic Criteria for PMDD</th>
<th>Diagnostic Criteria of PMS</th>
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<tr>
<td>A. Occurs during most cycles. 5 of the following need to be present with one core symptom*:</td>
<td>A. Premenstrual syndrome can be diagnosed if the patient reports at least 1 of the following affective symptoms during the 5 days before menses in each of 3 menstrual cycles:</td>
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<tr>
<td>1. *Depressed mood, hopelessness or self-deprecation</td>
<td>Affective Symptoms:</td>
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<td>2. *Anxiety, tension, “on edge”</td>
<td>1. Depression</td>
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<td>3. Suddenly sad, tearful, feeling rejected</td>
<td>2. Angry Outbursts</td>
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<td>4. *Persistent irritability, anger or interpersonal conflict</td>
<td>3. Irritability</td>
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<td>5. *Decreased interest in usual activities</td>
<td>4. Anxiety</td>
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<td>6. Sense of having difficulty concentration</td>
<td>5. Confusion</td>
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<td>8. Appetite change and cravings</td>
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9. Hypersomnia or insomnia
10. Feeling overwhelmed or out of control
11. Physical symptoms: breast tenderness or swelling, headaches, “bloating”, weight gain

Somatic Symptoms
1. Breast Tenderness
2. Abdominal Bloating
3. Headache
4. Swelling of Extremities

| B. Disturbance interferes with work or school, or with usual social activities and relationships |
| B. These symptoms are relieved within 4 days of the onset of menses, without recurrence until at least cycle day 13. The symptoms are present in the absence of any pharmacologic therapy, hormone ingestion, or drug or alcohol use. The symptoms occur reproducibly during 2 cycles of prospective recording. The patient suffers from identifiable dysfunction in social or economic performance. |
| C. Disturbance not an exacerbation of the symptoms of another disorder although it can be superimposed on one |
| D. Criteria A, B and C must be confirmed by prospective daily ratings during at least 2 consecutive symptomatic cycles |

**Key Teaching Point:** There are clear diagnostic criteria to distinguish between PMS and PMDD. It is essential that patients keep a prospective daily rating to aid in diagnosis and management. Without a prospective rating, only a presumptive diagnosis can be made until confirmed with the rating tool.

2. If both PMS and PMDD require prospective daily ratings, which tools are available for patients to assess their symptoms?

- Several tools are available:
  - COPE: Calendar of Premenstrual Experience
  - MDQ: The Moos Mental Distress Questionnaire
  - PAF: Premenstrual Assessment Form
  - PRISM: Prospective Record of the Impact and Severity of Menstruation
3. What are the treatment options for this patient?

- Non-pharmacologic
  - Supportive reassurance, counseling and aerobic exercise
- Dietary
  - Avoid processed foods, alcohol, caffeine, salt, refined sugars and fats
  - Consider adding calcium and magnesium supplementation
    - Calcium decreases water retention, cravings, pain and poor mood
- Pharmacologic Treatment
  - SSRIs (Gold standard)
    - Fluoxetine or sertraline or paroxetine controlled release
  - Ovulation suppression
    - OCP
      - Ethinyl estradiol combined with drospirenone is the only combined hormonal contraceptive that has demonstrated benefit to PMDD treatment
  - Danazol and GnRH agonists
    - Beneficial in short term studies
    - Long term studies have not been evaluated
  - Oophorectomy
    - Reserved for extreme cases
    - Risk vs benefits must be discussed

**Key Teaching Point:** Management of PMS and PMDD should include a multidisciplinary approach. Treatments should be employed from simple lifestyle changes to pharmacologic modalities in a stepwise fashion.

REFERENCES


