THE NORTHERN HOSPITAL

DYSMENORRHOEA

"Tears of Gold" oil and gold leaf on canvas, Anne Marie Zilberman (in the style of Gustave Klimt).

I hate all pain,
Given or received; we have enough within us,
The meanest vassal as the loftiest monarch,
Not to add to each other's natural burden,
Of mortal misery.

Lord Byron, "Sardanapalus", 1821

DYSMENORRHOEA

Introduction

Dysmenorrhoea (painful menstruation) is a very common condition.

Despite the psychosocial impact of this condition, women are frequently reluctant to seek proper medical help.

Primary dysmenorrhoea typically occurs in the first few years after menarche.

Secondary dysmenorrhoea tends to occur later in reproductive life.

Pathophysiology

Primary dysmenorrhoea:

Primary dysmenorrhoea is thought to be mediated by prostaglandins (PG F2 alpha in particular) causing vasoconstriction and overcontractility of the myometrium.

Both of these factors in turn lead to ischaemia of the myometrium and hence pain.

The severity of primary dysmenorrhoea is directly related to the **prostaglandin concentration in the menstrual fluid.**

Risk factors for primary dysmenorrhoea include:

1. Early onset of menarche
2. Long duration of menstrual flow
3. Smoking
4. Obesity
5. Alcohol consumption

Secondary dysmenorrhoea:

Secondary causes of dysmenorrhoea include:

1. Endometriosis
2. PID
3. Fibroids
4. Adenomyosis
5. Uterine polyps
6. Non-hormonal intrauterine devices
7. Congenital abnormalities

Clinical Features

1. Primary dysmenorrhea usually occurs in ovulatory cycles and usually appears within a year after menarche.

   Period pain that starts within 6 to 12 months of menarche is a strong diagnostic indicator of primary dysmenorrhoea.

. In classic primary dysmenorrhea, the pain:

   - Begins with the onset of menstruation (or just shortly before)
   - Persists throughout the first 1-3 days.
   - The pain is described as cramping in nature, often with a superimposed background of constant lower abdominal pain, which may radiates to the back or anterior and/or medial thigh.

2. A thorough menstrual history should be taken including the age at menarche, cycle regularity, cycle length, last menstrual period, and duration and amount of menstrual flow.

3. Check for any significant past gynaecological history.

4. Aspects of the medical history that suggest **secondary** dysmenorrhoea include:

   - The time of onset of dysmenorrhoea (often in the third decade or later, although it may still be from the onset of menses)
   - A change in the pattern of period pain

- The presence of dyspareunia
- The nature of the menstrual bleeding:
    - ♥ Heavy menstrual bleeding
    - ♥ Intermenstrual bleeding
    - ♥ Postcoital bleeding
    - ♥ Irregular bleeding
- A poor response to a trial of treatment
- Family history.

5. Examination will be directed according to the index of suspicion for an underlying pathology.

Investigations

In most cases none are routinely required.

Beta HCG should be considered in all females of reproductive age who present with abdominal pain.

Investigation is indicated in those cases where complicating underlying pathology needs to be ruled out.

Pelvic ultrasound is a good first up investigation, more specialized investigations for endometriosis should be directed by a specialist gynaecologist.

Management

Primary dysmenorrhoea:

In general terms Treatment aims to:

- Suppress ovulation

And/or

- Inhibit prostaglandin production

The principle treatment modalities include the use of:

- A combined oral contraceptive pill

Or

- An NSAID.

These approaches may be combined for persistent pain

Effective treatment options include:

1. Oral contraceptives: [1]

   These reduce menstrual flow and therefore prostaglandins that are contained in menstrual fluid.

   Uses:

   - Ethinyloestradiol 30 micrograms combined oral contraceptive pill

2. NSAIDS [1]

   NSAIDs relieve primary dysmenorrhoea by suppressing prostaglandins in menstrual fluid.

   Ideally these drugs are given 48 hours *before* menstruation is expected, or immediately with the *onset* of pain.

   Treatment should continue for the first 48-72 hours of menses when prostaglandin release is maximal.

   There is insufficient evidence to favour one NSAID over another.

   In women at risk of gastrointestinal adverse effects from NSAIDs, a proton pump inhibitor may be prescribed concurrently.

   Suitable NSAID regimens include:

   Ibuprofen:

   - 200 to 400 mg orally, 3 - 4 times daily.

     Maximum daily dose 1600 mg

   Mefenamic acid:

   - 500 mg orally, 3 times a day

   Naproxen:

- 500 mg orally initially, then 250 mg every 6 - 8 hours.

  Maximum daily dose 1250 mg.

Aspirin:

- 300 to 600 mg orally, every 4 hours as necessary

3. Combination therapy:

- In severe cases both NSAIDs and oral contraceptives may be combined. [2]

Secondary dysmenorrhoea:

The above options may be tried but may prove less useful than in cases of primary dysmenorrhea

The principle treatment is directed against the underlying cause.

References

1. eTG - July 2015

- Endocrine Therapeutic Guidelines, 5th ed 2014.

Dr. J. Hayes

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