

Menstrual pain – when to eliminate and when to investigate

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Introduction

Menstrual pain, also known as dysmenorrhoea, occurs in as many as one out of two women and up to one in ten women have severe symptoms. Pain is experienced as a throbbing or cramping pain in the lower abdomen, before and during the menstrual period. Although common, symptoms are usually treated effectively with simple analgesics. This article discusses some of the causes of menstrual pain, treatment options and guidelines on when to refer patients for further evaluation.

Causes and symptoms of dysmenorrhoea

Primary dysmenorrhoea

During menstruation some chemicals, called prostaglandins, are formed in the lining of the uterus. These prostaglandins are involved in pain and inflammation, cause muscle contractions in the uterus, and may also be responsible for nausea, vomiting and headaches sometimes associated with dysmenorrhoea. The muscle contractions may constrict the blood vessels leading to the uterus, resulting in pain due to oxygen starvation. Pain is experienced as a cramping or throbbing pain that often starts one day before bleeding, gradually eases after the start of menstruation and often disappears by the end of the first day of bleeding.

Patients may also experience the following symptoms:

| | |
|-------------------|---------------------|
| • lower back pain | • fatigue |
| • nausea | • bloating |
| • diarrhoea | • headache |
| • dizziness | • flu-like symptoms |

Primary dysmenorrhoea occurs due to high levels of prostaglandins. Pain is most common during adolescence, starting within four to five years of the first menstrual period, becoming less common as women age and is uncommon after having children.

Secondary dysmenorrhoea

Secondary dysmenorrhoea occurs when other conditions such as endometriosis, pelvic inflammatory disease, non-cancerous growths or cervical stenosis (where the opening of the cervix is so small that it restricts menstrual flow resulting in pain from increased pressure in the uterus). Secondary dysmenorrhoea is most common in women older than 30 years, especially those who have had children, and is rare in women younger than 25 years of age.

The pain with secondary dysmenorrhoea can occur at any time during the cycle, often up to one week before menstruation and is experienced as a dull, aching pain rather than a cramping or throbbing pain. Pain can get worse as menstruation starts and may also occur during sexual intercourse. Patients with suspected secondary dysmenorrhoea should be referred to a doctor for follow-up investigation.

Treatment options for primary dysmenorrhoea

Alcohol and tobacco can worsen menstrual cramps and are best avoided. There is some evidence that exercise during menstruation results in the release of endorphins that may reduce pain and promote a feeling of well-being. Low level heat applied locally may relieve pain, and has reduced the time to pain relief when used with ibuprofen. Similarly, taking a hot bath may also relieve pain. The use of fish oil (omega-3 fatty acids) has reduced the need for pain killers. The use of pyridoxine (vitamin B₆) with or without magnesium has also shown some benefit in reducing pain.

Considering that menstrual pain is associated with the release of high amounts of prostaglandin, it makes sense to use painkillers that target prostaglandin production. Non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen, diclofenac and naproxen, as well as aspirin, inhibit prostaglandin production and are effective in reducing pain associated with dysmenorrhoea. They are most effective if taken regularly for two to three days, starting with the first symptoms of menstruation or when bleeding starts. Patients should be informed to take these NSAIDs with or after meals.

Some products available over-the-counter (OTC) for treatment of dysmenorrhoea combine analgesics and these may include combinations of ibuprofen with paracetamol, aspirin with paracetamol and combinations of paracetamol, codeine, caffeine and either diphenhydramine or doxylamine. Always refer to the manufacturers package inserts for dosing recommendations.

Patients with stomach ulcers, bleeding problems, kidney or liver disease should not take NSAIDs. Patients with aspirin sensitivity and those with asthma should use NSAIDs with caution. Short-term use of NSAIDs is not usually associated with significant adverse effects.

Aspirin is contraindicated in patients with aspirin sensitivity and is also best avoided in patients who experience nausea and vomiting with dysmenorrhoea. Soluble forms of aspirin work more quickly and are less likely to cause stomach problems.

Paracetamol does not have an effect on prostaglandins but may be useful in patients who cannot take NSAIDs or aspirin and those who also suffer from nausea and vomiting with dysmenorrhoea since it does not irritate the stomach lining.

Table I provides the recommended doses for some of the treatment options available OTC for primary dysmenorrhoea.

Table I. Recommended doses for OTC treatment of primary dysmenorrhoea

| Active ingredient | Dose (oral) | Maximum dose |
|-------------------|-------------------------------------|---|
| Ibuprofen | 400 mg three times a day | 1200 mg in 24 hours |
| Mefenamic acid | 500 mg three times a day | 1000 mg per day, not for longer than three days |
| Aspirin | 325 mg to 650 mg every four hours | 4 000 mg in 24 hours |
| Paracetamol | 500–1000 mg every four to six hours | 4 000 mg in 24 hours |

Women may have significantly less dysmenorrhoea following two or three months' treatment with an oral contraceptive. Women should speak to their doctors for suitable treatment options. Women who do not get relief with pain killers only, may respond to treatment with the combination of a painkiller and an oral contraceptive.

When to refer

Patients with suspected secondary dysmenorrhoea (see above) should be referred to a doctor for further investigation

and treatment. In addition, patients should also be referred under the following circumstances:

- Patients who fail to respond to treatment with maximum doses of painkillers.
- Pain that disrupts normal day-to-day living every month.
- Presence of abnormal vaginal discharge.
- Abnormal bleeding.
- Severe pain and bleeding between normal menstrual periods.
- Pain with a late period (could indicate ectopic pregnancy).
- Presence of fever, dizziness or fainting.

Conclusion

Menstrual pain is a common condition and women will often seek advice and self-treatment options at the pharmacy. It is important to remember that patients may find it embarrassing to discuss their condition and symptoms and therefore it is imperative to provide conditions in the pharmacy that provide privacy.

Relevant information (as discussed above) should be gathered from the patient to establish whether referral to a doctor is required. Primary dysmenorrhoea can be treated successfully in most patients using NSAIDs or aspirin. For those patients with bleeding disorders, stomach ulcers or aspirin sensitivity who cannot use NSAIDs, paracetamol may be an alternative treatment option. Where maximum doses do not provide relief, patients need to be referred to a doctor for further assessment and management.

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