Centre for Sustainable Delivery

NHS SCOTLAND

Modernising Patient Pathways Programme:

Menstrual and Perimenopause Migraine

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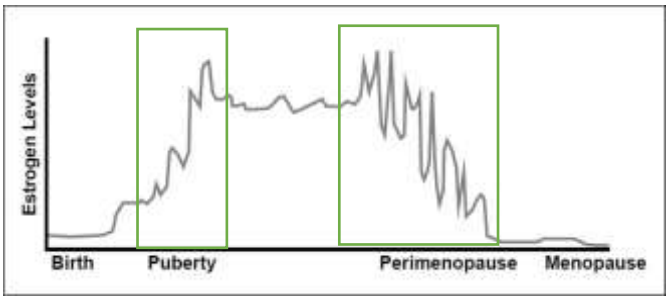
Background

Oestrogen levels vary throughout a women's life with greater fluctuations happening during puberty and the perimenopause.

There is an increase frequency of migraine associated to periods of oestrogens fluctuations[1].

The oestrogens level mirror changes in migraine prevalence. Migraine may disappear around or after menopause and there may be a worsening frequency of migraine or menstrual migraine during the perimenopause.



Menstrual migraine refers to the episodes of migraine that start on day - 2 to +3 of menstruation in at least 2 of 3 menstrual cycles. If there are no other migraine attacks during the cycle, such migraine is called pure menstrual migraine. If there are migraine attacks at other times, then it is called menstrually related migraine[2].

Menstrual migraine is usually more severe, more prolonged and more refractory to treatment than non-menstrual migraines[3].

It is during the oestrogen withdrawal that happens at the menstrual phase of the cycle when there is an increased risk of migraine. The increase in uterine prostaglandin release may also have a role in the risk of migraine[4].

Pathway recommendations

Treatment of menstrual migraine:

Treatment of menstrual migraine starts by optimising acute treatment, bearing in mind that menstrual migraine tends to be more severe, prolonged and refractory.

When acute treatment is not effective, then one may consider different prophylactic approaches.

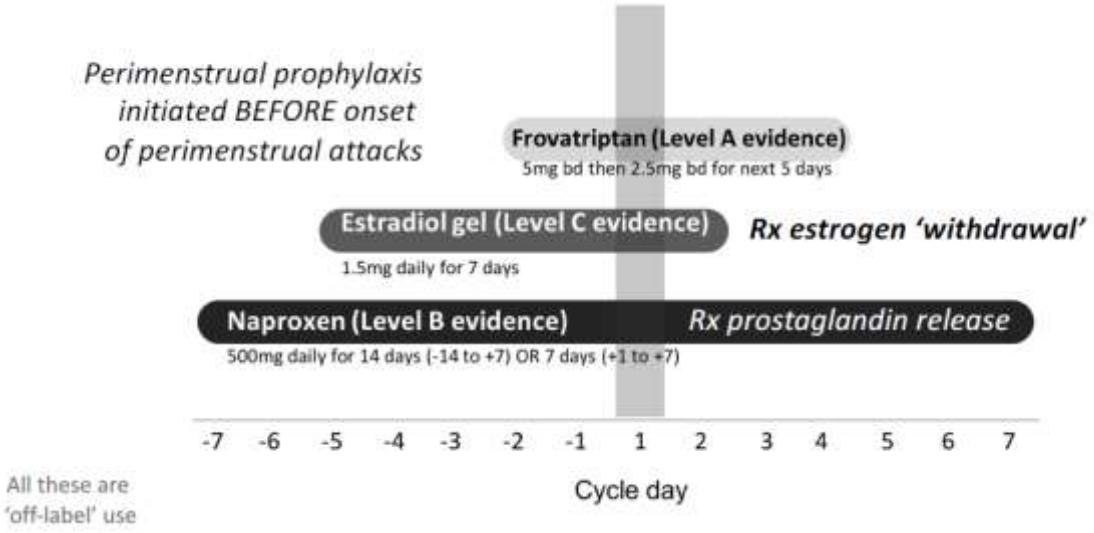
Standard prophylactic medication can be used in menstrually related migraine when there are other migraine attacks during the cycle; but it may not be effective for pure menstrual migraine, when targeted prophylactic approach is likely to be more adequate.

[1] MacGregor EA. Lancet Neurol 2004;3:354–61.
[2] ICHD 3rd edition. Cephalalgia 2018;38:1-211.
[3] Pinkerman B and Holroyd K. Cephalalgia 2010;30:1187-94.
[4] MacGregor et al. Neurology 2006; 67: 2154-8.

Targeted perimenstrual prophylaxis can only be used when menstruation is regular and predictable because the prophylaxis has to be started before the onset of the menstrual attack[5].

Examples include:

- Frovatriptan on day -2 at 5mg twice a day followed by 2.5mg twice a day for 5 days
- Naproxen 500mg daily from day -7 to day + 7 or shorter courses from day -1 to day +7
- Estradiol gel 1.5mg daily from day -5 for 7 days.



Another approach would be to supress menstruation

A) by supressing all ovarian activity: Examples include:

- Continous combined hormonal contraceptive (Ethinylestradiol). This also treats menopausal symptoms and healthy women can take it up until age 50. It is contraindicated in migraine with aura.
- Injectable progestin-only contraceptives (Medroxyprogesterone acetate)
- Oral progestin-only contraceptives (Desogestrel 75mg)

B) by supressing prostaglanding release (reducing menstrual bleeding) with progestin-releasing intrauterine device. Oestrogen withdrawal still occurs with this option.

[5] Silberstein S et al. Neurology 2012;78:1346–53

Hormonal replacement treatment during perimenopause:

As opposed to contraceptive hormones (Ethinylestradiol), hormonal replacement therapy (Estradiol) does not supress ovarian activity and can increase hormone fluctuations and therefore the risk of migraines during perimenopause.

Hormonal replacement treatment postmenopause:

Transdermal oestrogen (estradiol) or continuous progestogen option may be used in the postmenopause to help minimising hormone fluctuations.

Estradiol is not contraindicated in migraine with aura. Transdermal route is preferred over oral tablets due to more stable serum hormone levels associated with nonoral routes[6].

Referral to secondary care

Migraine is the most likely diagnosis for a patient attending primary care with headache. Many of these patients will be successfully managed in primary care. If there is a clear diagnosis of migraine we recommend acute +/- preventative treatment (as detailed in acute and prophylactic sections).

Where prophylactic treatment is not successful after adequate trials of three prophylactic drugs, consider referral to relevant secondary care services as per local arrangements.

If there is diagnostic uncertainty or concern about a secondary cause, at this point consider open access CT as an alternative to secondary referral.

References and further resources

References are in the footers of the original document – please insert hereMacGregor EA Menstrual and perimenopause migraine: a narrative review Maturitas 2020;142:24-30

[6] MacGregor EA. Maturitas 2020;142:24-30. Kuhl H. Maturitas 1990; 12:171–197

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