

## Women's issues in headache medicine

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Migraine affects three times more women than men during the reproductive years. Menstruation is a significant risk factor for migraine, with attacks most likely to occur on or between 2 days before the onset of menstruation and the first 3 days of bleeding.

Effective acute treatment may be all that is necessary for control. However, there is evidence that menstrual attacks are more severe, longer, less responsive to treatment, more likely to relapse and associated with greater disability than attacks at other times of the cycle.

Predictable menstrual attacks offer the opportunity for perimenstrual prophylaxis taken only during the time of increased migraine incidence. There is grade B evidence of efficacy for perimenstrual prophylaxis with transcutaneous estradiol 1.5 mg, frovatriptan 2.5mg twice daily and naratriptan 1mg twice daily. If the woman has co-morbid dysmenorrhea and/or menorrhagia, premenstrual NSAIDs or hormonal suppression of ovulation with contraceptive options should be considered. Contraceptive strategies offer the opportunity for treating menstrual migraine in women who also require effective contraception.

There is no restriction to use of combined hormonal contraceptives in women with migraine without aura. If attacks occur during the hormone-free interval, continuous use or extended-cycle is recommended.

Combined hormonal contraceptives are not recommended for contraception in women with migraine with aura, since both are independent risk factors for ischemic stroke. Non estrogen-containing contraception is often more effective, without the increased risk of ischemic stroke. If combined hormonal contraceptives are used as a medical treatment, e.g. for polycystic ovarian syndrome, the benefits to the individual might outweigh the risks.

Migraine typically improves during pregnancy but some women experience more frequent and severe headaches, while a few develop aura for the first time. Migraine poses no threat to the pregnancy, so it is important that treatment is equally benign. However, women with migraine should be carefully monitored during pregnancy because of increased risk of hypertensive disorders of pregnancy and of stroke.

Investigations, if required, are the same as for non-pregnant women. MRI is considered safe in pregnancy and contrast imaging can be undertaken if indicated. No adverse fetal effects follow the use of gadolinium but iodinated contrast media has the potential to depress thyroid function and neonatal thyroid function should be checked during the first week postpartum.

Aspirin and NSAIDs are safe in the first and second trimesters but should be avoided near term. NSAIDs, with the exception of aspirin, can be used during lactation. Women who have taken triptans in the first trimester can be reassured that their use is unlikely to affect the pregnancy. If triptans are indicated during pregnancy and lactation, sumatriptan is the triptan of choice. If prophylaxis is necessary, propranolol is the drug of choice during pregnancy and lactation. Amitriptyline is an alternative option.

Breastfeeding is encouraged for women whose headaches improve during pregnancy, as it sustains the benefits of pregnancy.

## **Brief Biography**

E. Anne MacGregor

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Anne MacGregor is a specialist in headaches and women's health. In addition to her academic post in Neuroscience, she has a clinical post in Sexual and Reproductive Healthcare at St. Bartholomew's Hospital, London.

She is actively involved in education and is joint Vice Chair and CRQ Convenor of the Examination Committee of the Faculty of Sexual and Reproductive Healthcare, and General Training Programme Director for Barts Health NHS Trust. She has published over 180 research papers and book chapters, five single author books, five co-authored books and has co-edited three books.

She is a co-author of the British Association for the Study of Headache guidelines for the diagnosis and management of migraine, tension-type, cluster and medication overused headache, now in their third edition. Her research crosses the fields of neurology and reproductive healthcare, with her MD thesis exploring the role of oestrogen in migraine.