Managing migraine in primary care

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A migraine is a neurological disorder that results in intense headaches, often accompanied by nausea, light sensitivity and vomiting.

The mechanisms of migraine remain incompletely understood, but there are several theories. One theory is that migraine is thought to be a neurovascular disorder, with vascular changes occurring secondary to neural activation – blood vessels change in response to chemical signals from surrounding nerve fibres.

The pain arises from three components of the trigeminal-vascular system of nerves around the head and face: pain-sensitive cranial blood vessels, trigeminal fibres that innervate them, and the cranial parasympathetic outflow.

Aura is commonly associated with migraine. This is a set of symptoms people who get migraines sometimes experience before the migraine occurs, though it can last through the migraine itself. Aura is a set of confusing or disturbing perceptions, often of light, but sometimes including sound and smell. Tingling in the arms and legs, and confusing thoughts may also occur.

A COMMON PROBLEM
Globally, some studies have found that migraine occurs in about 10% of the population, according to the World Health Organization. Migraine prevalence reported in previous community-based studies of headache diagnosis and prevalence in Singapore was 2.4% in males and 3.6% in females.

Cases of migraine often run in families. Approximately 70% of patients have a first-degree relative with a history of migraine. The risk is increased four times in relatives of those suffering from migraine with aura. Gender plays a role in migraine as well – 75% of sufferers are women.

For every million of the general population worldwide, 3,000 migraine attacks occur every day. Yet, it is important not to miss a sinister cause for headache in primary care.

DIAGNOSING MIGRAINE
Migraine is a common condition that general practitioners (GPs) will face in their daily practice. The most important challenge is not to miss a sinister cause. Any episodic headache may be a possible migraine.

The answers to three simple questions help make the diagnosis of migraine:
- “Has a headache limited your activities for a day or more in the last 3 months?”
- “Are you nauseated or sick to your stomach when you have a headache?”
- “Does light bother you when you have a headache?”
Provided a sinister cause has been ruled out, those with two positive answers out of three have a 93% chance of a migraine diagnosis. If all three are positive answers, a patient has a 98% chance of migraine diagnosis. Tension headaches tend to be relatively featureless, otherwise a ‘normal’ headache.

A complete neurological examination is still very important, and the findings clearly documented, including examination of the fundus – the presence of optic disc swelling, which is caused by increased intracranial pressure, or any focal deficit suggests an underlying structural mass.

There are no specific tests for migraine diagnosis but GPs can look out for red flags: recent head trauma, worst headache of life, altered sensorium, weakness, numbness, optic disc swelling, seizures, age >50 years, temporal pain, fever, neck stiffness, transient visual obscuration and valsalva-induced headache are a few of these.

**APPROACHES TO TREATMENT**

Guidelines for diagnosis and treatment are available from a number of bodies, including the International Headache Society.

Treatment should begin with advising trigger avoidance. Migraines can be triggered by certain foods including red wine, monosodium glutamate and caffeinated drinks, medications and even changes in weather or altitude.

Abortive treatment can include pain medications such as non-steroidal anti-inflammatory drugs, opioids, anti-emetics, ergotamines and triptans, or prophylactic therapy such as beta blockers, anticonvulsant drugs and calcium channel blockers.

Red flags also suggest secondary headaches which may be caused by an underlying disease such as subarachnoid haemorrhage, subdural haematoma, tumour, giant cell arteritis, meningitis or benign intracranial hypertension. Here, a referral is indicated.

GPs should be aware of ‘rebound’ headaches that occur with medication overuse. Such attacks are migraine-like and they occur on 15 or more days per month. In these cases, limiting analgesic use should be specifically discussed.

**DISEASE MANAGEMENT**

Once they begin prophylactic treatment, migraine patients should be followed up with regard to compliance, adverse effects, and response in terms of pain frequency and intensity.

A migraine diary, where patients observe and record triggers, can be useful.

**CONCLUSIONS**

Management of lifestyle issues, including sleep, eating habits, stress and caffeine use should be discussed with patients. GPs should clarify that migraine can be treated and be well controlled.

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**Online Resources:**

- **International Headache Society**

- **US National Institute of Neurological Disorders and Stroke**

- **American Migraine Foundation**
  [http://www.americanmigrainefoundation.org](http://www.americanmigrainefoundation.org)

- **Mayo Clinic**

- **Singapore Ministry of Health**

Not all products and/or indications mentioned in this article are available and/or approved for use in all countries. Please refer to the specific prescribing information that may be found in the latest MIMS.