

Migraine with aura and the risk of increased mortality

Any discussion of risks should be tailored to the individual



ZEPHYRUS/PL

RESEARCH, pp 492, 493

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Evidence suggests that people who have migraine with aura have increased risks of cardiac and cerebrovascular disease.¹ Two linked cohort studies add to this evidence. Gudmundsson and colleagues examined whether migraine with aura in mid-life is associated with increased mortality from cardiovascular disease, other causes, and all causes,² and Kurth and colleagues assessed the relation between migraine with aura and haemorrhagic stroke.³

The first study followed 18 725 men and women for about 25 years.² Because of the large number of people and the long follow-up the authors were able to analyse specific causes of death. They found that people with migraine with aura had a significantly higher risk of all cause mortality (hazard ratio 1.21, 95% confidence interval 1.12 to 1.30) and mortality from cardiovascular disease (1.27, 1.13 to 1.43), mainly as a result of coronary heart disease (1.28, 1.11 to 1.49) and stroke (1.40, 1.10 to 1.78).

In the second study, Kurth and colleagues assessed 27 860 women aged over 45 who took part in the US Women's Health Study.³ They found an increased risk of haemorrhagic stroke in women who had migraine with aura (2.25, 1.11 to 4.54). This risk was higher for intracerebral haemorrhage than for subarachnoid haemorrhage and the risk of fatal events was especially high (3.56, 1.23 to 10.31). These findings contrast with earlier results from the same study, which were based on a considerably shorter follow-up and found no increased risk of haemorrhagic stroke in women with migraine with aura.⁴

Several large epidemiological and patient register based studies have shown that men and women with migraine with aura have higher risks of myocardial infarction and ischaemic stroke.¹ However, evidence on the relation between migraine with aura and the risk of haemorrhagic stroke and overall mortality has either been conflicting or the results have been negative. The two new studies add to the current evidence by including these two events within the known spectrum of risks for people with migraine with aura.

The interpretation of these increased risks, however, raises the question of how migraine with aura was classified in the two studies. Most population based studies report that this subtype occurs in fewer than 33% of people with migraine, but the proportions in the two studies were higher. The reason for this is unclear, but it might relate to the definition of aura used by the authors. In large scale epidemiological studies the phenotypical classification of migraine is based on a limited set of standardised questions. Thus, the classification is usu-

ally not performed by individual examinations and interviews with experts. In the definition of the International Headache Society (IHS), aura is not just a symptom indicating that a migraine is coming. Because the two linked studies began during different decades, they each used different sets of questions for the classification of migraine, especially for cases with aura. It is not clear whether these patients were classified as having migraine with aura according to the IHS definition or whether people with very active or severe migraine without aura were also included. In this case the risk for migraine with aura would be underestimated.

Another difficulty in classifying migraine is that defining the presence of aura is not easy. Aura may never be present during migraine, sometimes present, or always present, and patients can also have aura without headache. The aura pattern might also change over time. All of this makes aura difficult to classify in large epidemiological studies.

In the context of these difficulties in interpretation, what is the clinical relevance of these findings? The first step is to distinguish whether aura is present or not in a patient with suspected migraine, and this should be done by an expert.

Once the diagnosis of migraine with aura is made the next important question is whether the clinician should inform the patient about the increased risk of future vascular disorders and death. Information and treatment of any concurrent risk factors and comorbidities, such as hypertension or overweight, is advised. However, it is not clear whether patients without other risk factors or morbidities would benefit from being told about their potentially increased risk. Clinicians have to consider aspects that influence the doctor-patient relationship, such as patient confidence; ethical issues, such as the right not to know; and practical implications, such as problems in long term treatment. For many people the information will cause an unwarranted amount of anxiety, although others may use the opportunity to modify their lifestyle and risk factors accordingly. Future research will have to assess whether prophylactic drug treatment of migraine not only reduces the number and severity of migraine attacks but also reduces subsequent cardiovascular and cerebrovascular events. However, because this will require long follow-up, in the meantime clinicians must carefully weigh the decision whether or not to discuss the risks related to this condition.

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with any organisations that might have an interest in the submitted work in the previous three years; KB has received within the past five years completely investigator initiated research funding as principal or coordinating investigator in the areas of stroke, depression and subclinical atherosclerosis, multimorbidity, and health services research from the German Minister of Research and Technology (BMBF); for a study on regional variations of migraine and other types of headache (2003-7) he has received unrestricted grants of equal share to the University of Muenster from the German Migraine and Headache Society (DMKG) and Allmiral, Astra-Zeneca, Berlin-Chemie, Boehringer Ingelheim Pharma, Boots Healthcare, GlaxoSmithKline, Janssen Cilag, McNeil Pharmaceuticals, MSD Sharp & Dohme, and Pfizer; for an ongoing study (2007-11) on the course of restless legs syndrome he has received unrestricted grants to the University of Muenster from the German Restless Legs Society and Boehringer Ingelheim Pharma, Mundipharma Research, Neurobiotec, Schwarz Pharma Germany, and Roche Pharma. SE

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Voting and mental capacity

Voting is a political right, not a matter of competence to make decisions



JOE RAEDLE/REPORTAGE

In England, 700 000 people have dementia and 1.2 million have a learning disability.^{1 2} Many of these will have wanted to vote in this year's UK general election and had the mental capacity to do so, but a substantial proportion may not have had the opportunity.

This is important because the number of people living in democracies worldwide is increasing. If people are denied the opportunity to vote (because they are not encouraged to register or because voting is not facilitated) their rights as citizens are undermined. Furthermore, because the ways to vote (and consequently to vote fraudulently) are increasing, if a vote is cast for someone who lacks capacity, democracy may be undermined. Capacity increasingly causes difficulties for both paid and family carers, as Livingston and colleagues highlight in the linked study,³ so it seems inevitable that doctors will be asked to assess capacity to vote.

The first concern is a lack of clear advice. In the United Kingdom, recent electoral law abolished the common law notion of incapacity to vote on grounds of a diagnosed mental disorder.⁴ The Mental Capacity Act 2005, which covers England and Wales, explicitly prohibited substitute decisions with regard to voting. The Electoral Commission advises that probable mental incapacity is not a barrier to inclusion on the register of electors or to voting.⁵ However, electoral registration officers are instructed that to vote by proxy an elector must have "mental capacity."⁶ Hence, doctors could be asked to assess a person's capacity.

The second concern is about what actually happens. A study from the UK has confirmed the belief that people with learning disabilities are under-represented at the polls.⁷ The study also found that adults with learning disabilities were six times more likely to vote if they lived with at least one other adult who voted—a finding that agrees with Norwegian research.⁸

In the United States, research shows that although many people with mild to moderate dementia vote, they are more likely to do so if their carer is a spouse rather than a son or daughter.⁹ In a survey of 100 outpatients

with dementia, 60% of patients voted, and more severe dementia correlated with both decreased relevant knowledge and voting.¹⁰ In nursing homes and assisted living units, about 29% of residents voted, and the variation between residences was striking.¹¹

The likelihood of voting therefore seems to depend in part on the social setting and support, which explains why the variation is so great. The data also suggest that other people are in effect deciding on whether someone should vote. Hence, a third concern is about how assessments of capacity to vote are made. In Australia, where voting is compulsory, an elector may be removed from the electoral roll if a medical practitioner certifies that he or she is of "unsound mind"—incapable of understanding the nature and importance of voting. In practice, it is unclear who is being excluded and what rights of redress they might have.

An uneasy tension exists between a person's diagnosed mental status and their functional capacity to vote. A status approach to voting rights is easy to implement, although it is blatantly discriminatory because a mental disorder does not necessarily compromise the capacity to vote. A functional approach—where all citizens have their capacity to vote assessed—is fair, but such an approach, if implemented fully, would pose an administrative nightmare.

In the US, some states routinely deny the vote to citizens under guardianship because of dementia, but this is being challenged. An assessment tool to judge a person's functional competence to vote has been developed.¹² Such a test, if used in the UK and targeted only at people with a diagnosis of dementia, learning disability, or some other mental impairment, would probably contravene the Disability Discrimination Act 2005.

The final concerns centre on citizenship. In 2006 the Convention on the Rights of Persons with Disabilities guaranteed citizens with and without disabilities the same political rights and opportunities. Nonetheless, a recent survey identified only four democratic states (Canada, Ireland, Italy, and Sweden) that place no legal

RESEARCH, p 494

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restrictions on the voting rights of adults with mental impairments.¹³ Kenya's recently ratified constitution also adopts the relevant article of the convention.

Our attitudes towards capacity to vote are important because they reflect our views on citizenship. Resources are available to help people with learning disabilities to vote, but more needs to be known about how to facilitate voting among people with impaired intellectual abilities. In the UK, support is needed for doctors who are approached to assess the capacity to vote of a person with a mental disability who has expressed a wish to vote. Regardless of any concerns over capacity, he or she has a right to vote.⁴

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Opioids for chronic musculoskeletal pain

Lack of evidence of benefit and potential for harm should caution against their use



SPL

Chronic musculoskeletal pain is common. Up to half the adult population has chronic pain at any one time, and two thirds of these have musculoskeletal problems.¹ Chronic musculoskeletal conditions are persistent, debilitating, often characterised by substantial pain, but are non-fatal. In the United Kingdom, this equates to as many as 16 million adults with chronic musculoskeletal pain, around five million of whom will seek healthcare advice. Similar proportions of the population are affected in other developed countries.

Treatments are available for people with chronic musculoskeletal pain. Analgesic drugs and physiotherapy, for example, can reduce pain in many people. The effects are often short lived, however, and the scope for preventing or alleviating long term pain is limited. Patients and clinicians continue to search for treatment that is safe and effective and alleviates short term and long term pain. Drug companies share the same goal, with the added motivation that such a treatment would have a huge potential in the worldwide market.

Opioids could be seen to fit the bill. The substantial, even dramatic, rise in prescriptions of opioids over recent years suggests that some groups believe this to be the case,^{2,3} although data exploring possible reasons for this are sparse. One recent survey from the UK reported that 83% of general practitioners believed that opioids were effective for chronic non-malignant pain.⁴ But is this group of drugs all it seems to be? Opioids are certainly justified in situations such as end of life pain, severe acute pain, and severe (short term) exacerbations of chronic pain. Evidence supports the effectiveness of opioids for short term pain relief,⁵ and they are often tolerated by patients despite common side effects such as dry mouth, nausea, and constipation.⁶

Crucially, though, gaps exist in the literature on both the effectiveness and the harms of long term use of opioids for chronic musculoskeletal and non-cancer pain,^{5,7,8} and in the long term they may actually be ineffective.⁹

The potential for risk has not been ignored. Treatment guidelines recommend considering the risks of side effects and opioid dependence when prescribing opioids, plus specialist referral if long term use is being considered.¹⁰ General practitioners have reported worries about addiction and other adverse events when prescribing opioids.⁴ In addition, the rise in opioid prescriptions has been paralleled by substantial increases in deaths from opioid related overdose.¹¹ Until recently, it was unclear whether these parallel trends were related, but a recent study has provided the first empirical evidence to link prescribed opioids to both fatal and non-fatal overdoses in patients with chronic non-cancer pain.¹² Overdoses were most common at the highest opioid doses, but importantly in public health terms, most overdoses occurred in the larger groups of people receiving lower doses.

The clinical community must ask itself why, in the face of inadequate evidence of effectiveness and emerging evidence of potential harms, such an increase in the prescription of opioids for chronic non-cancer pain has occurred?

Long term use of particular types of opioids may be safe and effective for specific groups of people with chronic musculoskeletal pain. The challenge for future research is to identify who these people are, which opioids are best to treat them, which doses are most appropriate, and how long any effects last. Equally, alternative safe and effective treatments for people with chronic

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musculoskeletal pain are needed, including other analgesic drugs and non-drug based treatments. Improved support for self management of long term pain conditions may also reduce requests for prescription pain relief.

Overall, the evidence of potential risks of long term opioid use combined with the lack of evidence of effectiveness is a public health concern, given the high prevalence of chronic musculoskeletal pain and the rising trends in opioid use.

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Rape as a weapon of war in modern conflicts

Families and communities are victims, as well as individuals

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Rape is deployed as a weapon of war in countries throughout the world, from Bosnia to Sudan, Peru to Tibet.¹ Rape includes lack of consent to sex as well as provision of sex to avoid harm and obtain basic necessities. The Rome Statute of the International Criminal Court recognises that rape and other forms of sexual violence by combatants in the conduct of armed conflict are war crimes and can constitute genocide.² Sexual violence such as forced marriage, female genital mutilation, and rape as a precursor to murder constitute torture under international law and are breaches of the Geneva Convention.² Rape, as with all terror warfare, is not exclusively an attack on the body—it is an attack on the “body politic.” Its goal is not to maim or kill one person but to control an entire sociopolitical process by crippling it.

It is an attack directed equally against personal identity and cultural integrity.²

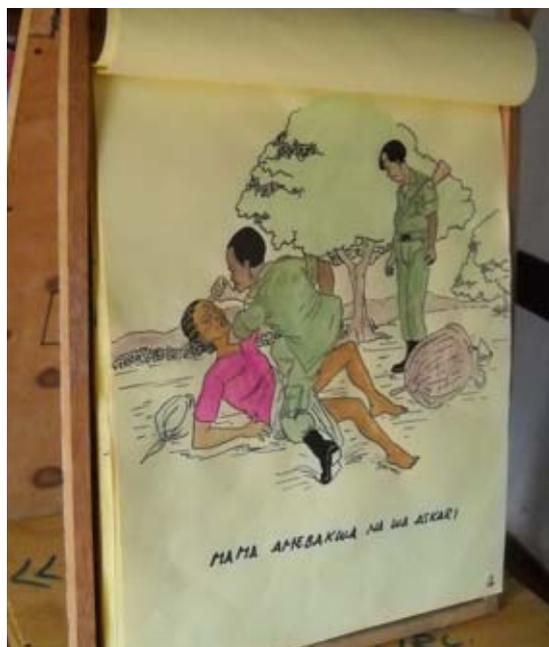
Rape has long been perpetrated during war. Since the second world war, however, rape has assumed strategic importance, and is now a deliberate military strategy.³ Women are now not only raped but physically scarred and mutilated.⁴ In recent conflicts, rape has been used as a reward for victory in battle, a boost to troop morale, as punishment and humiliation for both men and women, to incite revenge in opposing troops, to eliminate or “cleanse” religious or political groups, and to destabilise entire communities by creating terror.^{5,6}

When rape is used as an instrument of war it is perpetrated against pregnant women, infants and elderly women, men, fleeing refugees, and the internally displaced. We do not know the prevalence of rape during war because no international detection or reporting system exists, and rape is often not reported for fear of further violence. Information on prevalence generally comes from focused studies in individual countries. In the Democratic Republic of the Congo 16 000 rapes occurred in 2008 alone, and in South Kivu province, health centres estimate that 40 women were raped in the region daily.⁷ In 2005-6, a Liberian survey showed that 92% of interviewed women had experienced sexual violence, including rape.¹ In the United Kingdom, 50-70% of female asylum applicants were raped, witnessed rape, or had a credible fear of rape.²

Geographical, cultural, religious, political, legal, and behavioural conditions affect the likelihood of the systematic use of rape.^{4,6} Geographically remote locations allow perpetrators to rape with impunity. The likelihood that women will be raped, shamed, and isolated is increased in cultures with strong traditions regarding virginity, marital fidelity, and genital cleanliness.



Women collecting firewood in the bush are at high risk of sexual abuse



Training materials used in the evaluation of rape

In addition, religions with strong beliefs about appropriate female clothing and behaviour increase the risk that women will be falsely accused of adultery and raped as humiliation and punishment. Political and legal climates of terror and lawlessness allow military personnel and police to rape as a matter of course. These factors make it unlikely that most victims will ever report their crimes.

The effects of rape and sexual torture on survivors are economically, physically, psychologically, and culturally devastating. Survivors can be left with economic deprivation, AIDS, and sexually transmitted diseases.^{1,4,6} Victims experience serious acute and chronic medical problems, forced pregnancy, higher maternal mortality, miscarriage, infertility, and chronic sexual dysfunction.^{6,8} Because victims are often raped with a variety of objects—from body parts to guns, knives, bottles, and sticks—they are at risk of fistula formation, cervical cancer, and recurrent infections.²

The psychological effects are extensive. Victims develop fear of intimacy, self injury, flashbacks, sleep disorders,⁹ and chronic psychosomatic problems such as headaches and gastrointestinal disorders.¹⁰ Rape is more likely to induce post-traumatic stress disorder than events such as robberies, deaths of a close friend or family member, or natural disasters.¹¹

The effects of rape extend to the family and community. The family struggles to accept the victim back into her home, or abandons her completely, often leaving her children without property or support, and leaving her in worsening poverty.² Men whose partners or wives have been raped are humiliated and may become violent towards their partner.¹ Half of rape victims in Sierra Leone reported that their relationships with family and friends were deeply affected.⁸

Rape is also an attack on the culture and safety of the community and is accompanied by other acts of terror that disrupt basic services such as education, farming,

commerce, and access to health care. The threat of rape restricts core activities, such as collecting water and firewood and working on family farms. This results in fewer cooked meals and endangers family nutrition.²

The international community has mounted a considerable response including efforts to uphold international law, enhance security in refugee settings, condemn countries where rape is a standard weapon of war, initiate trials of human rights abuse, and increase access to humanitarian organisations in high risk settings. Three international priorities have been proposed: to identify and remove sexual inequality and bias; to develop a unified international response to ban the use of rape as a weapon of war and implement strategies of prevention and awareness; and to eliminate impunity by implementing accountability and restitution for the crimes.²

Effective responses to rape as a weapon of war by the medical and psychological communities include supporting mandatory reporting, increasing screening, bearing witness to the profound human cost of rape by investigating and documenting evidence, and adhering to standard treatment protocols with early and intense mental health support.

Rape during armed conflict is not simply about military personnel, police, or terrorists. Before 2004, rape assailants in the Democratic Republic of the Congo were primarily affiliated with the military; however, after 2004, civilian rapes increased 17-fold while rapes by armed combatants decreased by 77%. This pattern suggests a disturbing acceptance of rape among civilians.¹² Rape is the result of the lack of dedicated societal attention to the safety, respect, and prosperity of women in peace time, as well as in war.

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BMJ extends its European reach

By working with academic partners to further cross country learning



ANALYSIS, p 487

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Throughout the world, the recession is forcing governments to introduce reforms aimed at containing costs and increasing the efficiency of their health systems. As they consider policy options and implement reforms, interest in learning from other countries' experience is growing.

To further this, the *BMJ* has established a formal link with the European Observatory on Health Systems and Policies (www.healthobservatory.eu/) and will publish a series of articles based on their work. The observatory was set up 12 years ago, as a partnership hosted by WHO, to promote cross country learning through comparative analysis of health system reforms. Its mission is to help politicians and policy makers base their reforms on the best available evidence.¹

One way it does this is to generate and collate evidence in briefing papers which support the meetings held by the six monthly rotating presidencies of the European Council. The presidency provides member state's health ministries with the opportunity to set (as well as steer) the European health agenda. In the articles we commission from the observatory's portfolio we seek to widen discussion of the issues raised.

Belgium currently holds the presidency (www.health.belgium.be/eportal/Aboutus/eutrio/index.htm), and its meeting next week will focus on how to sustain and increase the productivity of Europe's ageing, predominantly female and increasingly part time, workforce. A recent estimate from the European Commission's health directorate suggests that by 2020 the European Union will be short of one million skilled health professionals, and that as a result around 13% of "necessary" care may not be covered.²

Discussion at the meeting will extend well beyond numbers. The cost of the workforce (around two thirds of most national health budgets) is also concentrating minds on "skills mix," as countries experiment with extending the role and responsibilities of nurses and new cadres of health workers. Future planning must also take account of the European "brain drain." Data from the ongoing Prometheus project show appreciable movement of health workers across EU borders and an east-west flow, which has left some poorer member states struggling to maintain essential services.³

In an article on www.bmj.com based on the observatory's work, Horsley and colleagues look at the measures countries have taken to maintain the competence of their workforce. Requirements for revalidation and continuing medical education vary, and the authors argue for a more harmonised approach.⁴

In a second article from the observatory, Thomson and colleagues look at the European and US experience with user charges to raise revenue and dissuade people from accessing "low value" care. They conclude that the United Kingdom should think twice before reaching for this policy instrument.⁵

Research is central to cross country learning on policy and clinical matters alike, and this year we established a

second important link with mainland Europe by appointing a European research editor Wim Weber, associate professor of neurology at Maastricht University. Wim has joined a team that includes *BMJ* research editors in Zagreb, Vienna, Paris, and Belfast, as well as those in mainland UK and the United States (<http://resources.bmj.com/bmj/about-bmj/editorial-staff>). His particular focus will be on helping European researchers to meet their needs better and increase submissions of high quality clinical research and analysis in clinical medicine, public health, health policy, and health systems.

We already have many strong contributions: around a fifth of original research papers published by the *BMJ* each year are from non-UK Europe, as were four of the 10 papers that were most accessed within two months of online publication last year.⁶⁻⁹

A third initiative the *BMJ* has taken is to become the media partner for the European Health Forum Gastein (www.ehfg.org), one of Europe's most influential forums for exchange between health policy makers, health professionals, the commission's health and research departments, and patient and consumer groups.

Cross country learning is not easy. The success or failure of any initiative depends on a wide range of highly context specific factors. It is also bedevilled by a serious lack of high quality, comparable, up to date data. In their recent study of temporal trends in breast cancer mortality in 30 European countries, Autier and colleagues acknowledged the limitations of using routinely collected national data to compare outcomes.¹⁰ But exchange of information and careful cross country analysis can provide valuable insights and identify potentially transferable lessons. We already have active and committed readers and contributors in mainland Europe and we would like more, to help us extend international debate on how best to tackle shared health challenges.

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