resources

Evidence in practice — number 4: Restless legs

Clinical question: How common is restless legs syndrome in primary care?

The evidence: Restless legs syndrome symptoms in primary care. A prevalence study. *Arch Intern Med* 2003; **163:** 2323-2329.[1]

Background: Patients with restless legs syndrome suffer from a range of sensory and motor symptoms affecting their legs during rest and/or while asleep. The sensory disturbance encompasses such symptoms as burning, cramps, paraesthesia, or weakness. In general, these symptoms can be temporarily relieved by moving the legs. There is no diagnostic test for the syndrome but to be categorised as having restless legs syndrome four criteria must be satisfied:[1]

1. The patient must have an urge to move the legs, usually accompanied by an unpleasant sensation in the legs.
2. Restless legs syndrome symptoms must be aggravated by rest.
3. Restless legs syndrome symptoms must be alleviated by movement and, in particular, walking.
4. Restless legs syndrome symptoms must be worse in the evening or night (either currently or when the condition first started).

Over the years many patients with restless legs syndrome have had their symptoms labelled as trivial or 'neurotic'.[1,2] This is unfortunate as the condition can cause considerable distress due to the associated sleep disturbance. Moreover, there are a range of treatments now available to help manage the condition.[2] There is also a suggestion that, as GPs, we fail to recognise the condition as we have a distorted perception of its prevalence among the groups of patients we are likely to encounter.[1,2]

Study design: This was a cross-sectional prevalence study conducted in the context of a three-doctor primary care practice in rural Idaho. Over the course of 1 year every patient aged over 18 years with an appointment at the clinic was asked to complete a 'Restless Legs Syndrome Questionnaire' (RLSQ). Patients who were not approached during their clinic appointment were subsequently mailed a questionnaire. For those patients filling in the RLSQ at the clinic, a researcher was available to provide assistance with interpretation or completion.

Outcome measure: In comparison with expert clinical diagnoses for patients attending a sleep disorder clinic, the RLSQ had previously been assessed as having a sensitivity of 92% and a specificity of 95%.

Results: Over the course of 1 year 2696 patients had clinic appointments and, of these, 1905 completed the RLSQ at the clinic and 194 by post. Overall 24% of patients could be classified as having restless legs syndrome according to all the four key criteria. The prevalence increased with age and was greater amongst women than men.

Commentary: When assessing the results from any prevalence study it is important to consider whether the results are trustworthy or have arisen as a result of bias/confounding.

In terms of the population studied, it is likely that there was some selection operating between those that participated and those that did not. Non-participants were more likely to be male and also tended to be slightly older (selection bias). Furthermore, there may be differences between those that completed the questionnaire by post or independently and those who sought 'guidance' from the researcher (that is, observation and interviewer bias).

There are often concerns about the use of instruments (for example, the RLSQ) that have been validated in a secondary care setting. It would clearly have been better if the instrument had been validated in a primary care population but, on the other hand, the questionnaire has clearly undergone some kind of validity assessment which, sadly, is frequently not the case in many surveys conducted in primary care populations.

References

1. Nichols DA, Allen RP, Grauke JH *et al*. Restless legs syndrome symptoms in primary care. A prevalence study. *Arch Intern Med* 2003; **163:** 2323-2329.
2. Anon. Managing patients with restless legs. [review] *Drug Ther Bull* 2003; **41:** 81-83.
3. Jones R, Menzies S. *General practice. Essential facts.* Abingdon: Radcliffe Medical Press, 1999.

© Nick Summerton

Confounding occurs where there is a third factor associated with the diagnosis of restless legs syndrome that could also, and independently, cause patients to make clinic appointments, thereby artificially enhancing the true prevalence among clinic consulters. A possible source of confounding relates to the observation that individuals with chronic diseases have higher consultation rates and, independently of this, have a greater tendency towards restless legs syndrome.

Overall, I would suggest that the results are important, but the prevalence is probably slightly overestimated due to the effects of bias and confounding. It is interesting to note that other population-based studies have placed the prevalence between 9% and 15%.[2]

In applying the results of this study to UK primary care, a further judgement needs to be made as to how similar the US clinical attendees would be to patients who consult UK GPs. According to Jones and Menzies, the average three-partner practice in this country would see 8400 patients for generalised conditions per annum;[3] approximately three times the number seen in the US situation. It would also be interesting to know whether the US survey was restricted solely to new clinic appointments for unrelated problems. Clearly, some patients may have been follow-up visits and some may have been consulting specifically about restless legs-type symptoms.

However, the overall message is that we should be more alert to restless legs syndrome; the prevalence is certainly much higher than many of us would expect.

The bottom line: Restless legs syndrome is not an uncommon problem among patients who are likely to consult us in routine practice; it may be present in up to a fifth of our patients. We should endeavour to be more alert to the diagnosis.

Nick Summerton

flora medica richard lehman

From the journals, October–November 2004

New Eng J Med **Vol 351**
1607 Endovascular repair of the abdominal aorta may well be the next big step in minimally invasive surgery, with a lower short-term mortality than the open procedure.
1721 A study from Augsburg, which concludes, 'The time spent in cars, on public transportation, or on motorcycles or bicycles was consistently linked with an increase in myocardial infarction'. Frustration, or fumes?
1829 Now that most of us no longer do nights on call, are we likely to make fewer mistakes? Yes, if two studies of US interns are anything to go by: abolishing 24-hour shifts reduced 'attentional failures' and serious medical errors.
1849 Bacterial meningitis in adults almost always presents with at least two of: headache, neck stiffness, fever, and altered mental status, according to this important Dutch study.
1941 This study shows that using ACE inhibitors to reduce blood pressure in type 2 diabetes reduces the development of microalbuminuria.
1952 And angiotensin II receptor blockers are as good as ACE inhibitors at treating established microalbuminuria: this also seems to be true for heart failure and acute myocardial infarction (see *Ann Intern Med* **141:** 693).

Lancet **Vol 364**
1405 An exciting report of successful unassisted pregnancy following the reimplantation of cryopreserved ovarian tissue from a young woman who had chemotherapy for cancer.
1421 A study showing that more than half of acute medical inpatients are mentally incapable of giving informed consent: their mini-mental state examination (MMSE) scores proved as reliable as more specific assessments.
1497 Stenting the oesophagus for malignant obstruction does not work as well in the long run as local radiotherapy (brachytherapy).
1523 Large heterogeneous systematic reviews can be problematic, but the message from this one is clear: self-management plans work for all kinds of chronic illnesses (see *Gut* **53:** 1639 for the latest example — inflammatory bowel disease).
1603 Do developing countries need more doctors? Yes, there is no substitute, according to this global analysis of human resources and health outcomes.
1663 A large Medical Research Council trial tried to find what sort of assessments of older people work best — universal or targeted, by primary care or a geriatric team? No real difference, it seems: all these do some good...
1678 ... whereas screening adolescent girls for cervical dysplasia or even human papillomavirus may do more harm than good, according to this study and the accompanying editorial (page 1642).
1702 A short review that tries to unravel the significance of vesico-ureteric reflux in children. It seems that surgery has virtually no evidence base.

JAMA **Vol 292**
1724 The only successful treatment for morbid obesity is bariatric surgery: this review proves that you should send your really gross patients to Barry the Surgeon.
1823 We used to be told that CT scanning was better than MRI scanning at detecting acute intracerebral haemorrhage, but this is no longer the case.
1955 A case-control study claiming that proton pump inhibitors are associated with a higher risk of pneumonia.
1989 Confused by the shoulder? Spend half an hour with this well-illustrated rational clinical examination article and you know more about it; but no-one seems to have done the necessary diagnostic studies in primary care.
2089 Regular influenza vaccinations reduce mortality in older people, more so with age.

Other Journals
Arch Intern Med (**164:** 1985) shows that chiropractic reduces the costs — financial and functional — of back pain: when will we get it paid for by the NHS? B-type natriuretic peptide is an infallible marker for cardiac distress — its use in diagnosing heart failure gets an excellent review on page 1978. A systematic review of trials of antibiotics to prevent myocardial infarction (page 2156) is, alas, negative. *Ann Intern Med* (**141:** 764) finds an increased risk of cardiovascular disease in those taking oral steroids. *Brain* (**127:** 2491) looks at the link between common childhood infections (including measles) and multiple sclerosis, and finds no connection. We all know that alcohol protects against myocardial infarction, but in *Epidemiology* (**15:** 767) comes an Italian study suggesting that this only applies to alcohol taken with food. Spanish wine gets a plug in a study (*Thorax* **59:** 981) claiming a protective effect against lung cancer. In our guest publication, *J Plankton Research* (**26:** 1315), you will learn that for krill, synchronised swimming is a finely tuned adaptive mechanism, whereas in humans it is a harmless social disorder.

Plant of the Month: ***Jasminum nudiflorum***
The late, great Graham Stuart Thomas, who died this year, named the winter-flowering jasmine as one of his six essential plants: best tumbling down a bank.