Medical treatment helps the passage of ureteric stones

Research question Can drugs expel ureteric stones?

Answer Yes. α adrenergic antagonists and calcium channel antagonists both help to expel stones in the lower third of the ureter

Why did the authors do the study? Ureteric stones are common, and those that don't pass spontaneously are usually treated with surgery or lithotripsy, both of which are expensive and associated with a moderate risk of complications or treatment failure. These authors wanted to review the growing evidence that drugs such as calcium channel blockers or α adrenergic antagonists encourage stones to pass without the need for other interventions.

What did they do? They searched four research databases for randomised trials of expulsive medical treatment for ureteric stones in any language. They also hand searched abstracts of international urology meetings, and contacted drug manufacturers for unpublished studies. They used criteria from the Cochrane Collaboration to assess trial quality.

They pooled data on 693 patients from nine trials testing α blockers (usually tamsulosin) or calcium channel blockers (usually nifedipine with or without corticosteroids) against an inactive control treatment, then did a further analysis including an extra five trials with control treatments such as corticosteroids or diazepam, which could conceivably have an effect on ureteric motility. Most patients received non-steroidal anti-inflammatory drugs for pain relief.

What did they find? Patients given α blockers or calcium channel blockers for between one and six weeks were 65% more likely to pass their ureteric stone than controls (risk ratio 1.65 (95% CI 1.45 to 1.88), absolute difference in risk 31% (25% to 38%)). The number needed to treat was four. Tamsulosin and nifedipine seemed to have similar effects when analysed separately (risk ratios 1.52 and 1.51). The three trials testing nifedipine combined with corticosteroids gave a risk ratio of 1.9 (1.51 to 2.4). Including the extra five trials made little difference to the overall result (risk ratio 1.52 (1.39 to 1.65)). The authors found no significant heterogeneity in any of their analyses.

The patients in these trials were generally young or middle aged outpatients with ureteric stones 4-8 mm in diameter. In all but one trial the stones were confined to the distal third of the ureter.

What does it mean? Conservative treatment with α blockers or calcium channel blockers could be an alternative to ureteroscopy or lithotripsy for people with uncomplicated ureteric stones in the lower third of the ureter. But bigger and better trials are required first. The trials in this meta-analysis included dozens rather than hundreds of patients, and eight of them were unblinded, which could have introduced bias. It's still unclear which treatment regimen works best. None of the trials looked carefully for side effects, so safety remains an issue. Hypotension and palpitations are two potential problems, reported by 3.3-4.2% of patients in two trials.

Hollingsworth et al. Medical therapy to facilitate urinary stone passage: a meta-analysis. *Lancet* 2006;368:1171-9

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Editor's choice

Of measles and flu

When was the last time you saw a case of measles? If you're in a developed country and are under 40, the answer may be never. But that might be about to change, provided of course that you recognise what you see. The number of cases is increasing steeply in the UK, bringing predictions of the re-emergence of endemic measles. Meanwhile, as Perviz Asaria and Eithne MacMahon point out (p 890), clinical experience of measles has declined. They offer a reminder of the clinical features, complications, and management strategies.

They also call for increased measles vaccine coverage if the UK is to meet the World Health Organization's target of elimination by 2010. UK vaccination rates remain below those achieved before Andrew Wakefield published his *Lancet* paper on MMR in 1998, and efforts to regain lost ground have been only partially successful. In the battle for hearts and minds, the media and anti-vaccine groups have mounted a far more compelling case than the Department of Health.

In view of this, plans to pursue Wakefield for misconduct through the General Medical Council seem doomed and dangerous. Doomed if the main charge is publishing flawed research because that would set an impossible precedent. So much research is flawed, the GMC would be overwhelmed. Dangerous because, even if successful, the case would refuel the controversy and present Wakefield's supporters with a platform. Part of the problem is the perception that no one in an official position has taken seriously the concerns of families who believe their children have been damaged by the vaccine. The denial that the vaccine has caused the damage, though almost certainly accurate, doesn't sound very sympathetic and leaves Wakefield with a monopoly on taking these concerns seriously.

Some say that the Wakefield saga may have helped medical science by making us all more careful about the research we perform and publish. (I note that two of the research papers in this week's *BMJ* are randomised trials, the other being a well performed qualitative study.) But it would be bad if we became too cautious, especially if journals shied away from controversy. I see no sign of that.

As if to prove the point, we publish this week a broadside (based on a systematic review of the literature) about the lack of evidence for influenza vaccine. Why, asks Tom Jefferson (p 912), is there such a gap between evidence and policy? Governments go to great lengths to promote and provide the vaccine. But there is almost no valid evidence that it does any good. Jefferson puts the gap down to our desire to do something, combined with "optimism bias"—an unwarranted belief in the value of interventions. Would randomised trials be unethical? No, says Jefferson, they are the only ethical response to the possible waste of resources on ineffective or only partially effective care. The problem is that the UK has no transparent process for evaluating the effectiveness or cost effectiveness of vaccines. NICE would like to take this on. The government should let it.

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