

Drug therapy helps passage of kidney stones

Clinical question Does drug therapy help the passage of kidney stones?

Bottom line The limited amount of available data suggests that alpha blockers and calcium channel blockers may speed the passage of kidney stones. Furthermore, it appears that combining these medicines with steroids provides additional benefit.

Synopsis These authors searched multiple databases looking for randomised controlled trials of the effect of calcium channel blockers and alpha blockers on the passage of kidney stones. They also searched for unpublished studies. Two authors independently reviewed each study, assessed their quality and extracted the data. Discrepancies were reconciled by consensus. The authors included nine trials with a total of 693 patients in this study. Unfortunately, the authors do not report the doses of the drugs used in the included studies. In the six studies reporting time to stone passage, the range was from as short as six days in several treatment groups to as long as 20 days in a control group. In five of those six trials, the treatment group had a shorter time to stone passage. The authors report that patients receiving active treatment had

a 65 per cent relative increased rate of stone passage compared with control patients. Based on the authors' estimates, four patients would need to be treated to facilitate the passage of one stone. A few studies also used steroids and the results suggest an additional benefit. Finally, the researchers report that most of the variability among the studies was attributable to variable inclusion criteria. Although they found no statistical evidence of publication bias, the authors are cautious about its potential.

Level of evidence 1a— (systematic review of randomised controlled trials with troublesome heterogeneity).

Reference Hollingsworth JM, Rogers MA, Kaufman SR, et al. Medical therapy to facilitate urinary stone passage: a meta-analysis. *Lancet* 2006;368:1171–9.

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