**Topic:** Alpha blockers for the treatment of ureteral stones

**Articles Reviewed:**

**Additional article suggested for reading:**

**Background**
Acute renal colic is a common presenting complaint to the emergency department. Several non-ED based studies have shown medical expulsive therapy using α-antagonists (tamsulosin) or calcium channel blockers to augment stone passage rates of moderately sized, distal, ureteral stones. The European Urology Association recommends tamsulosin to accelerate the spontaneous passage of ureteral stones (EAU Level 1a recommendation). Very little data exists regarding its efficacy on a general ED patient population. Many of the existing studies were performed before tamsulosin went generic in 2010.

**Key findings from our discussion and review of the articles include the following:**
- Several studies and 3 meta-analyses have shown that medical expulsive therapy increases the successful passage of distal ureteral stones and decreases the severity of pain and the overall number of colicky pain episodes compared with a standardized pain control regimen alone in patients who have distal ureterolithiasis and are referred to a urologist.
- Many of the small studies included in the meta-analysis had poor methodological quality, significant concern for bias and often had pharmaceutical support.
- Only two RCT studies have been performed in a general ED patient population with distal, uncomplicated ureterolithiasis (Ferre and Vincendau studies), with combined total of over 200 patients. In contrast to the previously reported literature on the topic, they did not show a difference significant difference when compared to placebo (time interval to stone expulsion, percentage experiencing expulsion by day 14 (Ferre) or 42 (Vincendeau), percentage experiencing relapse of pain or requiring urgent hospitalization and intervention during follow – up, or in analgesic requirements during follow-up)
- Tamsulosin went generic in 2010

**Summary:**
While the benefit of tamsulosin and medical expulsive therapy is suggested by many small studies and several meta-analysis, the quality of these studies is questionable, had problematic bias, and almost all were performed in an non emergency department ED patient population. The only two RCT studies that have been performed in nonselected ED patient population (combined total of over 200 patients) did not show a significant benefit compared to placebo for any significant patient oriented outcome. Tamsulosin has low cost and is well tolerated in most patients, as such it may be reasonable to use tamsulosin as an adjunct in the treatment of ED patients with ureterolithiasis. However, to date there is no definitive evidence that tamsulosin therapy is efficacious, tolerable and safe for use in a general ED population.

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