

DO PRE-OPERATIVE ALPHA-BLOCKERS INCREASE THE SUCCESS OF URETERAL ACCESS SHEATH PLACEMENT?

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Introduction

Urologists routinely place ureteral access sheaths (UAS) prior to ureteroscopy to expedite stone extraction and improve drainage. Alpha-blockers are known to relax ureteral wall smooth muscle. Several recent studies have shown that pre-operative alpha blockers decrease the need for ureteral dilation prior to semirigid ureteroscopy for ureteral stones, decrease the maximal insertion force required for UAS placement, and aid in placement of larger 16-French UAS. This study aims to determine if pre-operative alpha-blockers improve the success rate of placement of standard 12/14-French UAS prior to retrograde flexible ureteroscopy.

Methods

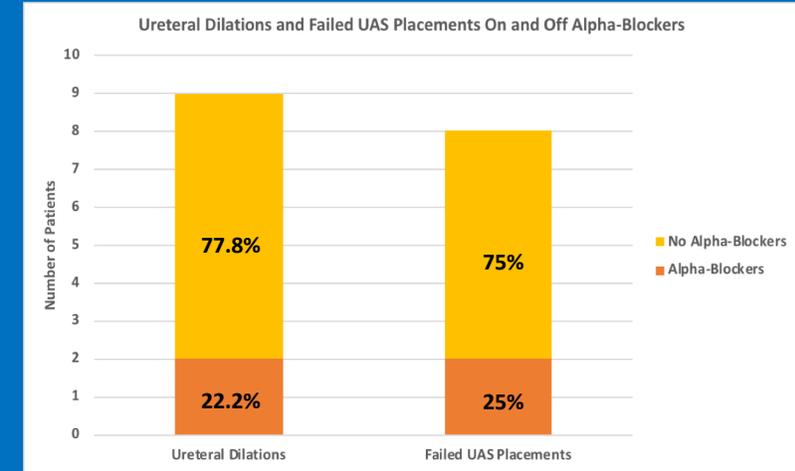
Patients from a single institution from January 2016 to December 2018 who underwent ureteroscopy and laser lithotripsy for stone treatment were retrospectively reviewed. Demographics, presence of pre-operative stents, UAS usage, UAS placement failure, need for ureteral dilation, pre-operative alpha blocker usage, and unplanned ED or clinic visits within 30 days post-operatively were recorded. Chi square analysis determined the correlation between alpha-blocker use and success of UAS placement. Patients who had uncomplicated UAS placement were compared to those requiring ureteral dilation and those failing UAS placement.

Results

Of the 527 patients reviewed, UAS were placed in 424 patients. Of the successful UAS placement group, 219 patients (51.7%) were on pre-operative alpha-blockers and 205 patients (48.3%) were not. Nine of 424 UAS patients (2.1%) required ureteral dilation to allow a UAS. Seven of nine (77.8%) patients requiring dilation did not take pre-operative alpha-blockers ($p=0.074$). UAS placement was unsuccessful in eight of 527 (1.5%) patients. Six out of eight (75%) of the failed UAS patients did not take any pre-operative alpha-blockers ($p=0.135$).

Conclusion

In the groups who failed UAS placement or required ureteral dilation, there was a higher proportion of patients not on pre-operative alpha-blockers, but no statistical significance was determined in these small groups. Pre-operative alpha-blockers were not shown to significantly affect standard 12/14-French UAS placement. Investigation of a larger cohort of complicated or failed UAS placements and further prospective studies are needed to confirm these findings.



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