

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

American Urological Association Annual Meeting 2020
Moderated Poster Session: MP15-11

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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
 - Aid in placement of larger 16-French UAS
- **Study Aim:** To determine if pre-operative alpha-blockers improve the success rate of placement of standard 12/14-French UAS prior to retrograde flexible ureteroscopy

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Methods

- Patients who underwent ureteroscopy and laser lithotripsy for stone treatment
 - Single institution
 - January 2016 to December 2018
 - Retrospective review
- *Collected Data:*
 - Demographics
 - Presence of pre-operative stents
 - UAS usage
 - UAS placement failure
 - Need for ureteral dilation
 - Pre-operative alpha blocker usage
 - Unplanned ED or clinic visits within 30 days post-operatively
- *Data Analysis:*
 - Chi square analysis to determine 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



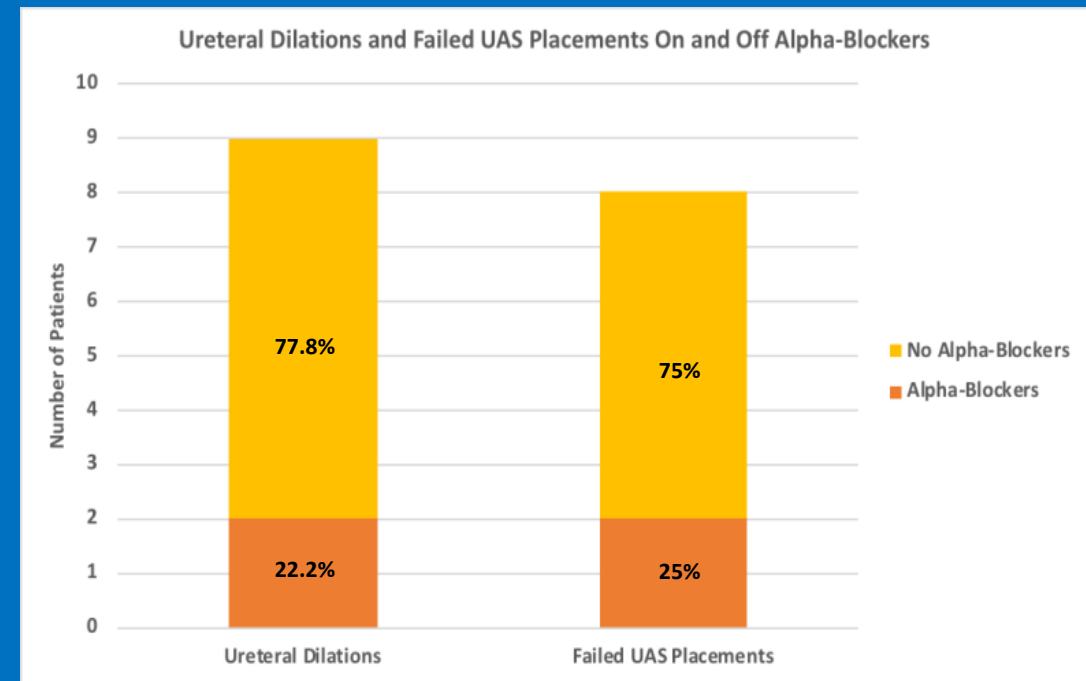
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Results

- 527 patients reviewed → UAS were placed in 424 patients
 - 219 patients (51.7%) were on pre-operative alpha-blockers
 - 205 patients (48.3%) were not
- Nine of 424 UAS patients (2.1%) required ureteral dilation
 - Seven (77.8%) 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 pre-operative alpha-blockers ($p=0.135$)



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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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