

American Urological Association Education & Research, Inc.

## AUA VIRTUAL Experience



#### PD61-04 PREDICTORS OF ANEJACULATION AFTER AQUABLATION PROCEDURE FOR BPH

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### Background

- Men who require surgical management for benign prostatic hyperplasia interested in options that offer preservation of *their sexual function* and relief of lower urinary tract symptoms
- Some evidence that preserving certain key anatomic structures plays an important role in preserving ejaculation
- Anejaculation occurs less frequently after Aquablation compared to TURP
- Aquablation features allow for further investigation of intraoperative predictors of anejaculation





# **The Aquablation Robotic Solution**

#### MULTI-DIMENSIONAL IMAGING

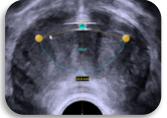
- Improved decision making
- Personalized treatment planning

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Enhanced Information & Data Integration



Cystoscopic Visualization



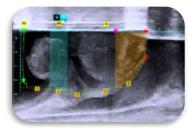
Ultrasound Visualization



- Autonomous execution
- Precision and accuracy
- Tissue Removal



#### Personalized, Patient-specific Surgical Standardization





#### CAVITATING WATERJET

- Tissue-selective
- Eliminates thermal complications



#### Tissue-selective Cavitation



Optimal tissue removal plan for each patient



#### Study Design & Primary Outcomes

Sexually active *cases* from the WATER, WATER II and WATER FRANCAIS studies who demonstrated marked postoperative *decrease in MSHQ-EjD* scores

#### were matched with

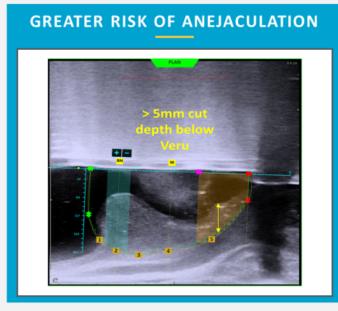
1-2 sexually active *controls* from the same trial with similar prostate size and *no decrease in MSHQ-EjD* scores.

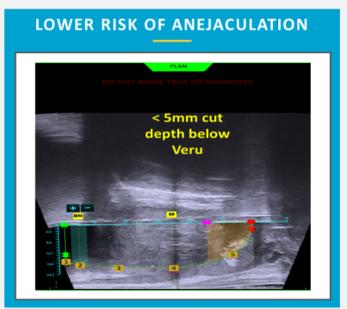
THE FOLLOWING PARAMETERS WERE SCORED BY BLINDED EXPERTS TO DETERMINE EFFECT ON ANEJACULATION RATES:

- Veru cut coverage as a percent in the sagittal plane
- Ejaculatory duct penetration
- Approximate depth of cut below veru on sagittal images (mm)
- Approximate angle offset of veru to centerline of protection zone
- Number of passes
- Intraprostatic calcifications



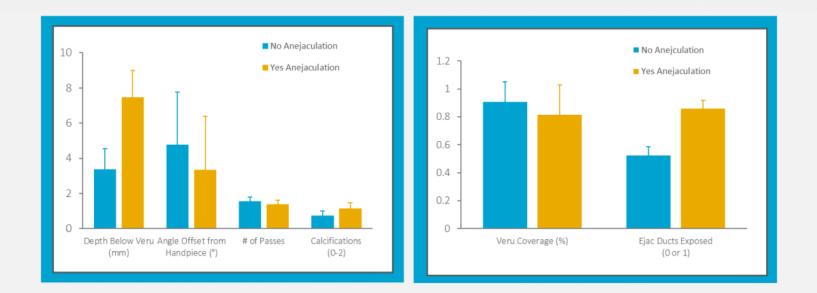
#### Study Design & Primary Outcomes







### Results: Contour Parameters & Ejaculatory Function





#### Conclusions

Using intraoperative TRUS recordings from Aquablation procedures, we identified that

# violation of anatomic structures involved in ejaculation

increase the risk of postoperative anejaculation.

Most careful attention to anatomic structures during contour planning may help to reduce the rate of postoperative anejaculation after Aquablation.

- When surgically planning the contour, surgeons should ensure the *cut depth does not exceed beyond 5mm below the verumontanum*, otherwise the risk of anejaculation increases.
- The parameters listed below do not affect the risk of anejaculation
  - Degree of offset from the handpiece
  - Number of treatment passes
  - Percentage of coverage over the veru using the veru protection zone function
  - Whether or not saline travelled retrograde through the patient