

## BENIGN PROSTATIC HYPERPLASIA SURGERY AND SEXUAL FUNCTION

### SURGICAL TECHNIQUES

#### Consolidated techniques

- TUIP
- TURP
- Open simple prostatectomy
- Laser treatments (e.g., HoLEP, ThuLEP, Greenlight vaporization)
- Other electrical procedures (e.g., TUVF, PKEP)
- Prostatic urethral lift (UroLift®)

Traditional treatments

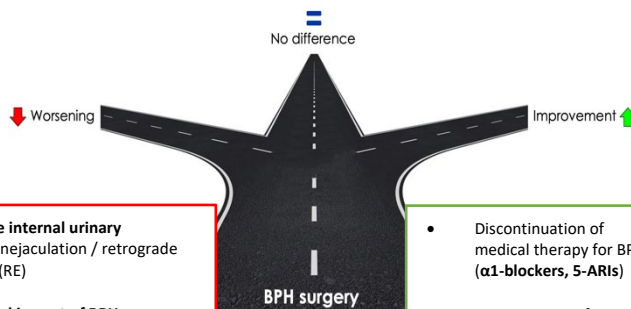
#### Techniques under investigation

- Minimal invasive simple prostatectomy (LSP, RASP)
- iTIND
- Waterjet Prostate Ablation (AquaBeam®)
- Water Vapor Thermal Therapy (Rezūm®)
- Prostatic artery embolization

Minimally invasive treatments

Ultra MIST can be performed in the office using intravenous sedation or local anesthesia (e.g., PUL, PAE, iTIND, Rezum)

### PATHOPHYSIOLOGY



- **Injury of the internal urinary sphincter:** anejaculation / retrograde ejaculation (RE)
- **Psychological impact of BPH surgery:** impact on sexual desire, sexual satisfaction, and erectile function
- **Injury of neurovascular bundles following capsular perforation:** rare
- **Indirect thermal injury to neurovascular bundles:** controversial
- **Urinary catheter:** prevents sexual intercourse

- Discontinuation of medical therapy for BPH (**α1-blockers, 5-ARIs**)
- Improvement of LUTS
- Removal of urinary catheter

RE is the most common sexual dysfunction reported after BPH surgery



### IMPACT ON SEXUAL FUNCTION

#### TRADITIONAL TREATMENTS

- **Stronger evidence**
- **Worsening of ejaculatory function (high rate of RE)**
- **No difference** in erectile function

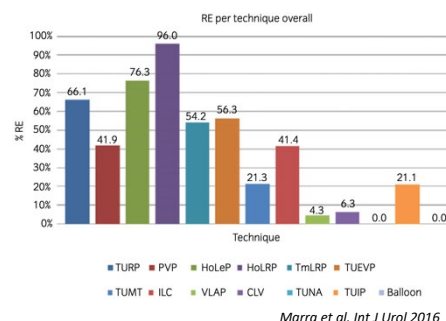


Patient characteristics could predict the risk of sexual dysfunction following BPH surgery:

- Patients with normal erectile function have greater risk
- Patients with more severe LUTS can achieve greater improvement of sexual function



Soans et al. Aging Male 2019



#### MINIMALLY INVASIVE TREATMENTS

- **Limited evidence available**
- Most of them were **proposed as procedures with less impact on sexual function** (especially ejaculation) than traditional techniques
- **No specific recommendation** of EAU guidelines regarding the effects on sexual health (excluded PUL)



#### EJACULATION PRESERVATION TECHNIQUES

- **Modifications** of traditional techniques (e.g., ep-TURP, ep-PVP, ep-HoLEP)
- Proposed to **preserve the ejaculatory function** (not complete desobstruction?)
- **Promising results**
- **Limited evidence!**

Recommendation	Strength rating
Offer Prostatic urethral lift (UroLift®) to men with LUTS interested in preserving ejaculatory function, with prostates < 70 mL and no middle lobe.	Strong

### CHARACTERISTICS AND LIMITATIONS OF AVAILABLE LITERATURE

- Most studies focus on surgical and functional outcomes of BPH surgery, while sexual outcomes are often **uninvestigated or under-investigated**.
- Most of the studies on BPH surgery including the assessment of sexual function are **case series with no control group** (not RCTs).
- Drugs for BPH (e.g., α1-blockers, 5-ARIs), taken by patients before surgery and suspended after the procedure, have a negative impact on sexual function and can be **confounding factors** that are difficult to assess for ethical reasons.
- **TURP** is the reference treatment in most comparative studies.

- Many studies still use **non-validated tools** to evaluate sexual outcomes (poor methodology).
- In most cases, only **erectile and ejaculatory functions** are evaluated.
- **IIEF** and its abbreviated forms (IIEF-5, IIEF-EF) are the most widely used validated tools for the evaluation of erectile function.
- **MSHQ-EJD** is the most widely used validated tool for the evaluation of ejaculatory function, however in most cases the papers report only **presence/absence of ejaculation**.
- **Orgasmic function, sexual desire and sexual satisfaction** are very rarely evaluated. The most used validated tool for these assessments is the IIEF with its specific domains.



Need for future well-designed studies!