



American  
Urological  
Association

Education & Research, Inc.

# AUA VIRTUAL EXPERIENCE

MP40 - 04



URI  
Istituto di Ricerca Urologica



UZ  
LEUVEN



## ANATOMICAL PROSTATE mpMRI FEATURES AND CONTINENCE RECOVERY AFTER ROBOT ASSISTED RADICAL PROSTATECTOMY: IS THERE SOMETHING BEYOND MEMBRANOUS URETHRAL LENGTH? RESULTS FROM A LARGE, MULTI-INSTITUTIONAL COHORT

Manuela **Tutolo**<sup>1</sup>, Giorgio **Stabile**<sup>1</sup>, Giovanni **Tasso**<sup>2</sup>, Wouter **Everaerts**<sup>3</sup>, Steven **Joniau**<sup>3</sup>,  
Dirk **de Ridder**<sup>3</sup>, Frank **Van der AA**<sup>3</sup>, Luk **Bruyneel**<sup>4</sup>, Ben **Van Cleynenbreugel**<sup>3</sup>;  
Francesco **De Cobelli**<sup>5</sup>, Antonio **Esposito**<sup>5</sup>, Donato **Cannoletta**<sup>1</sup>, Vito **Cucchiara**<sup>1</sup>, Emanuele **Zaffuto**<sup>1</sup>,  
Vincenzo **Mirone**<sup>6</sup>, Matteo **Menean**<sup>1</sup>, Andrea **Salonia**<sup>1</sup>, Nicola **Fossati**<sup>1</sup>, Giorgio **Gandaglia**<sup>1</sup>,  
Francesco **Montorsi**<sup>1</sup>, Alberto **Briganti**<sup>1</sup>.

1: Dept. of Urology and Division of Experimental Oncology, URI, Urological Research Institute, [IRCCS San Raffaele Scientific Institute, Milan](#), Italy

2: Dept. of Minimally Invasive and Robotic Urologic Surgery, [University of Florence, Florence](#), Italy

3: [University Hospitals Leuven](#), Dept. of Urology

4: Institute for Healthcare Policy, [Leuven](#), Belgium

5: Department of Radiology, Centre for Experimental Imaging, [IRCCS San Raffaele Scientific Institute, Milan](#), Italy

6: Dept. of Urology, [University of Naples Federico II, Naples](#), Italy.

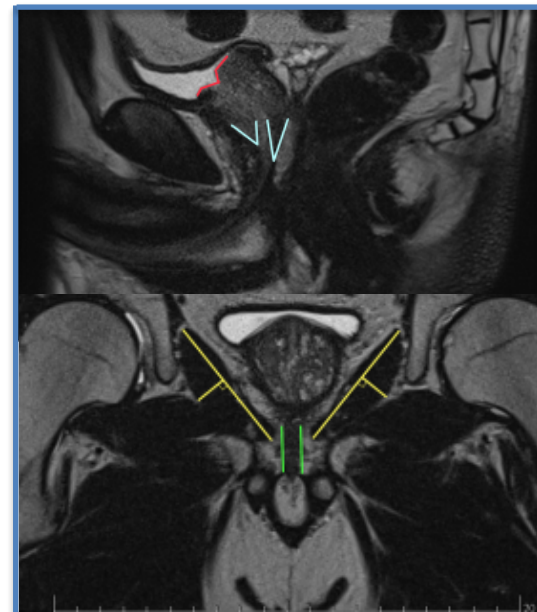


**STUDY AIM:** To assess the **association between pre-operative variables, MRI features and postoperative continence recovery (CR).**

**METHODS:** **235 RALP-pts** performed 1.5/3-Tesla mp-MRI  
**3 urologists** analysed the MRI (outcomes blinded)  
Continence: no pad usage

**UVA and MVA Cox regression analyses:**

- **APEX OVERLAPPING** (AO: ant, post, ant & post and no),
- **PROSTATE VOLUME** (Pv),
- **BLADDER NECK SHAPE** (BNS: round vs square),
- **LEVATOR-ANI THICKNESS** (LAT)
- **MEMBRANOUS URETHRAL LENGTH** (MUL),
- **DEMOGRAPHICS AND COMORBIDITY SCORES** (Age, BMI, CCI).





## RESULTS

- Mean follow-up: 22 months.
- **The 12 and 24-mo continence rates were 78.3% and 82.0%, respectively.**
- Overall, 169 patients (72.3%) had a C.C.I.  $\leq 2$

Variables:	Overall Population (n= 235)
<b>BMI</b> Mean-median (IQR)	25 - 25.6 (23.5; 27.5)
<b>Prostate Volume. - cc<sup>3</sup></b> Mean-median (IQR)	42 cc - 35 (27-51)
<b>Membranous urethral length (mm)</b> Mean-median (IQR)	15,5 – 15 (13-18)
<b>Levator ani thickness– mm</b> Mean-median (IQR)	10,7- 10.5 (9.5; 12)
<b>Apex overlapping (n, %)</b> <ul style="list-style-type: none"><li>• no</li><li>• anterior</li><li>• posterior</li><li>• anterior + posterior</li></ul>	<ul style="list-style-type: none"><li>• 74 (31.4%)</li><li>• 72 (30.6%)</li><li>• 35 (15.0%)</li><li>• 54 (23.0%)</li></ul>

## MULTIVARIABLE ANALYSIS PREDICTING CR

Variable	HR	95%CI	p-value
<b>C.C.I.</b>	0.26	0.11 - 0.54	<b>0.003</b>
<b>BMI</b>	0.99	0.90-1.10	0.97
<b>MUL</b>	1.05	1.01 - 1.1	<b>0.03</b>
<b>AO</b>	0.95	0.77-1.16	0.62
<b>BNS</b>	1,09	0.65-1.81	0.74
<b>LAT</b>	1	0.87-1.17	0.89
<b>PV</b>	1	0.98-1.01	0.98

**CONCLUSIONS:** Our results underline the **role of MUL, together with clinical and pathological variables**, in models predicting Continence Recovery. While other MRI parameters may not necessarily be assessed, **MUL inclusion is recommended.**