

353- Shorter prostatic urethral length on preoperative MRI is associated with higher risk of climacturia following robotic radical prostatectomy



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Hypothesis / aims of study

Climacturia is defined as the leakage of urine during orgasm

OUR OBJECTIVE: To determine if various preoperative MRI pelvic floor measurements were associated with the risk of climacturia following robot-assisted laparoscopic radical prostatectomy (RALP).

Study design, materials and methods

- Prospective
- 57 patients
- MRI preoperative measurements → 2 urologists
2 radiologists

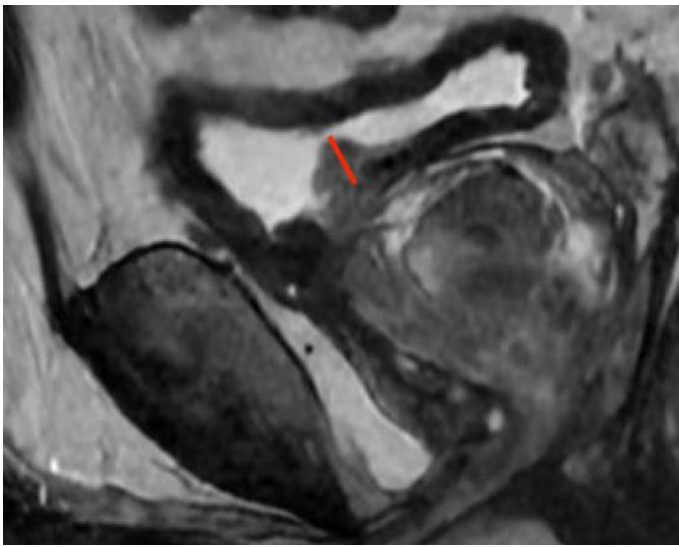
RALP

Follow-up: Climacturia questionnaire (1)

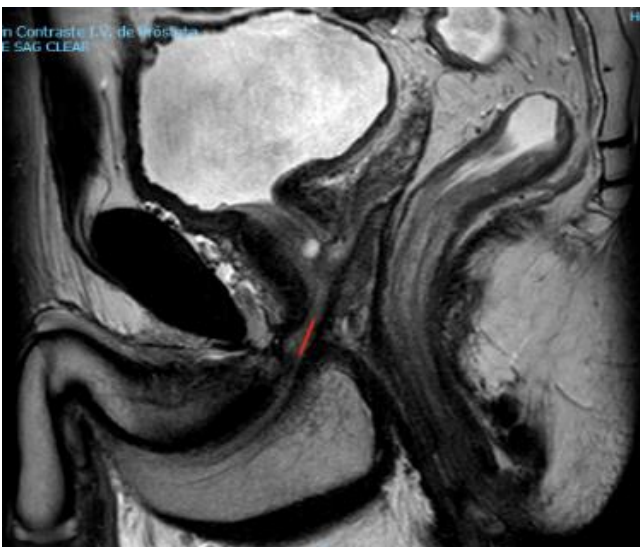
3-6-12 months

Logistic regression model:

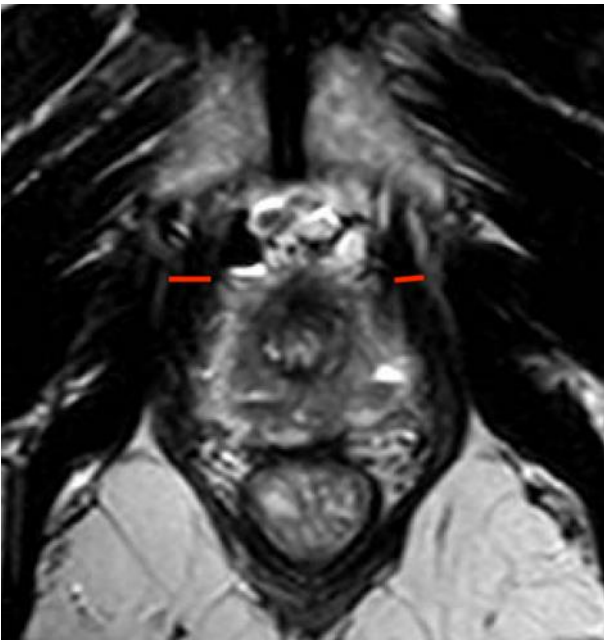
Are there any differences in prostate MRI in patients with and without climacturia?



Intravesical prostatic protrusion



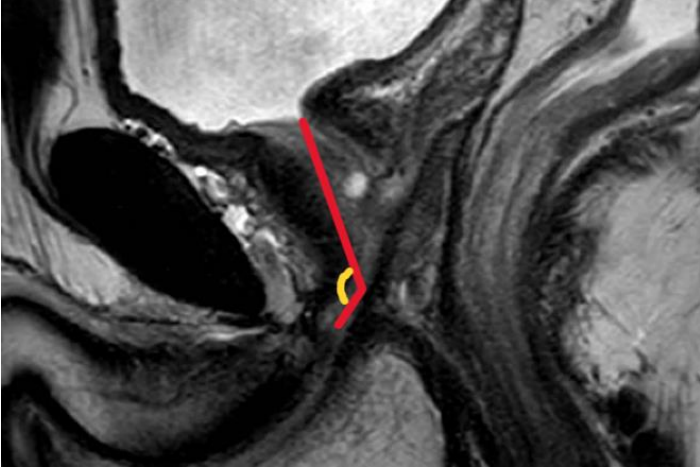
Membranous urethral length



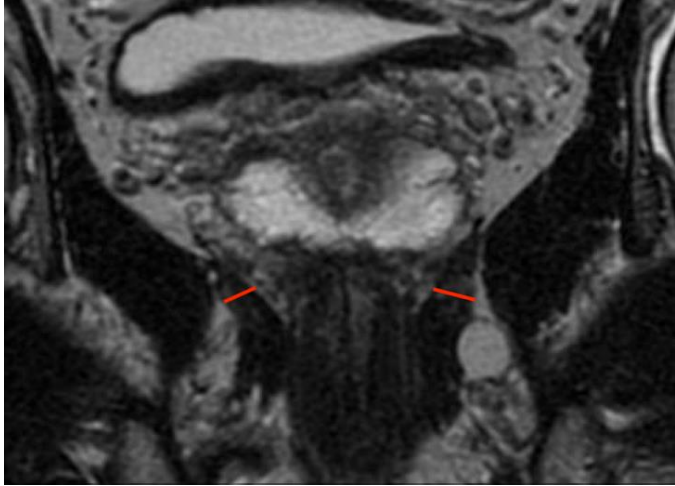
Puborectalis muscle thickness



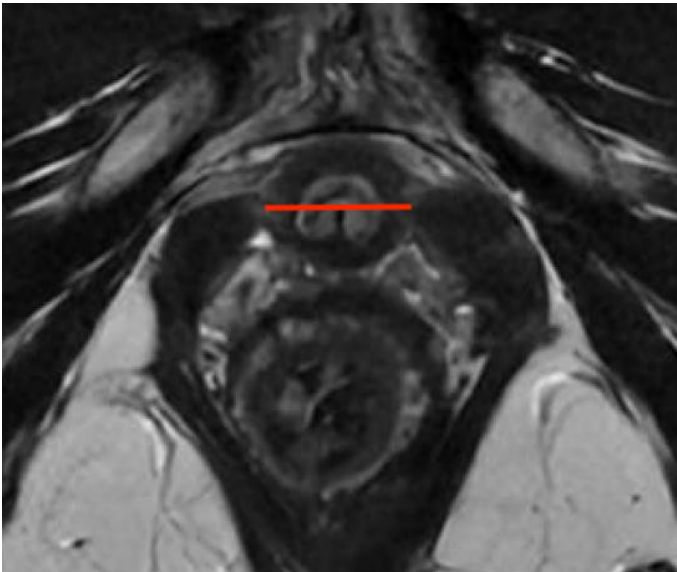
Obturator internus muscle thickness



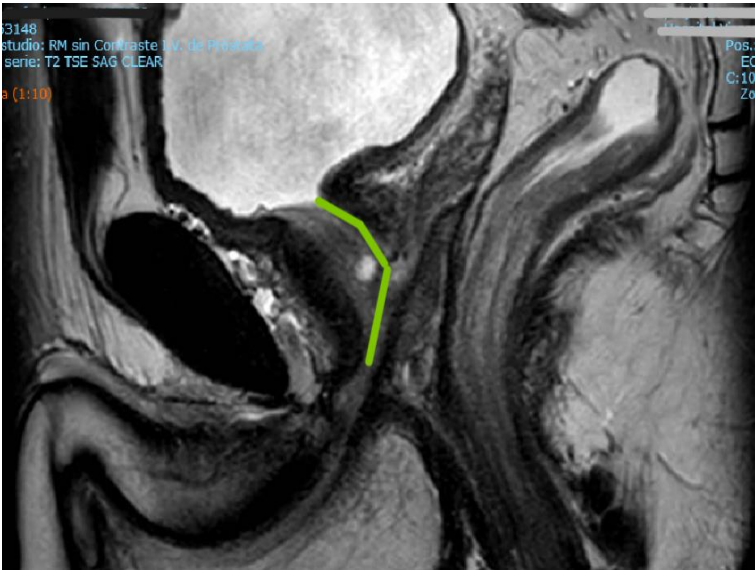
Angle membranous urethra-Prostate axis



Levator ani muscle thickness



Urethral width



Prostatic urethral length

Results and interpretation

BASELINE FEATURES	CENTRAL TENDENCY VALUES
Age (years)	60.24 ± 6.49
BMI (kg/m²)	26.53 (23.62 – 29.44)
DM	7 (12.3%)
Overall LUTS	20 (37%)
Storage LUTS	4 (7.4%)
Preoperative ISUP grade	42 (73.7%) ISUP 1/ 11 (19.3%) ISUP2/ 4(7%) ISUP 3
Preoperative PSA	4.21 (0.58 - 9)
Risk group (D'Amico classification):	
Low	34 (63%)
Intermediate - low	16 (29,6%)
Intermediate - high	4 (7.4%)
Degree of nerve preservation	
No preservation	1 (1,9%)
Unilateral	1 (1,9%)
Bilateral	52 (96,3%)

- Shorter prostatic urethral length → associated with higher risk of climacturia at 3 months

	Climacturia (13/33)	No climacturia	p
Prostatic urethral length (mm) (mean, SD)	40.81 (3.85)	45.30 (6.04)	0.024

Association in the logistic regression: **OR=0.83** (95%CI 0.688-0.98)(p=0.038).

- Greater urethral width and lower age → Climacturia 6 months:

	Climacturia (12/33)	No climacturia	p
Urethral width (mm) (mean, SD)	13.05 (1.51)	11.80 (1.33)	0.02
Age (median, IQR)	56 (46.5 – 60.50)	64 (60 – 65.50)	0.03

BUT NO association in the multivariate logistic regression (p>0.05)

- History of of LUTS→ Climacturia 12 months:

	Climacturia (14/34)	No climacturia	p
History of LUTS	57.14%	20%	0.026

BUT NO association in the logistic regression (p>0.05)

This association has been previously demonstrated in women (2,3)

Conclusions

Shorter prostatic urethral length on preoperative MRI is associated with higher risk of climacturia following robotic radical prostatectomy. This association has not been documented in previous publications.

References

- Parra López ML, Lozano Blasco JM, Osman García I, Congregado Ruiz B, Conde Sánchez JM, Medina López RA. Climacturia after robot-assisted laparoscopic radical prostatectomy. Rev Int Androl. 2021;19(1):49–52.
- Lavigueur-Blouin H, Noriega AC, Valdivieso R, Hueber PA, Bienz M, Alhathal N, et al. Predictors of early continence following robot-assisted radical prostatectomy. Can J Urol. 2015;9(1–2):93.
- Serati M, Salvatore S, Uccella S, Cromi A, Khullar V, Cardozo L, et al. Urinary Incontinence at Orgasm: Relation to Detrusor Overactivity and Treatment Efficacy. Eur Urol. 2008;54(4):911–7.