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## DISEASE-DEPENDENT FACTORS INFLUENCING THE APPEARANCE OF URINARY INCONTINENCE AFTER RADICAL PROSTATECTOMY

### Hypothesis / aims of study

One of the most feared after-effects of radical prostatectomy (RP) is the urinary incontinence (UI). We analyze the relationship between disease-dependent factors and the development of UI in a sample of a multicentre study.

### Study design, materials and methods

Retrospective multicentre study of 610 patients who underwent RP between March 2009 and December 2013 in 9 hospitals (two of category 4 and seven of category 3).

Study groups:

- Group A (GA: n=390): continent patients after RP

- Group B (GB: n= 220): any grade of UI after RP.

Age, PSA, clinical TNM clínico, biopsy's Gleason score, % of positive cores, prostate's volume, pTNM, surgical specimen's Gleason score, affected margins and type of surgical approach (laparoscopic (Lap), open retropubic (Op) or robotic (Rob) were analyzed.

Descriptive statistics, ANOVA, Student's t-test, Fischer's exact test,  $p < 0.05$  was considered significant.

### Results

Average age 65.22 years (range 44-78). 287 Lap (47.04%), 260 Op (42.62%), 63 Rob (10.32%).

Table 1. Variables' comparison between patients with and without IU. SD: standard deviation.

	No UI after RP (average, SD or %)	UI after RP (average, SD or %)	Significance $p$
Age	62.31	64.26	0.1325
PSA	8.61, SD2.37	8.78, SD 2.14	0.8539
cTNM	7.28, SD2.02	6.75, SD1.70	0.1157
Biopsy's Gleason	6.13, SD0.31	6.52, SD0.24	0.008
% cores (+)	15.56%	16.40%	0.7870
Prostate's volume	41.67, SD 8.59	41.18, SD 9.66	0.8197
pTNM	3.27, SD0.80	3.55, SD 0.60	0.7486
Surgery's Gleason	6.37, SD0.44	6.62, SD 0.31	0.0048
Margins (+)	30.62%	37.79%	0.1142
Lap	61.67%	38.33%	Lap and Op $p=0.4844$
Op	58.46%	41.54%	Op and Rob $p=0.0001$
Rob	96.82%	3.17%	Lap and Rob $p=0.0001$

No differences were found regarding age, PSA, cTNM, % of positive cores, prostate's volume, pTNM or surgical margins. Post-surgical continence was more frequent in patients with lower Gleason score (in the biopsy and in the surgical specimen). Negative relationship was found with the cTNM and the pTNM in GA and positive relationship in GB.

### Interpretation of results

When we diagnose a localised prostate carcinoma, we should inform the patients which are the most frequent adverse-events of the treatments we are offering them. Identifying possible continence's predicting factors is useful in our daily practice.

When operating a patients with a high Gleason score at the biopsy, we generally perform a more aggressive and radical surgery, and it can influence the results we have obtained.

The best results are found with the robot-assisted surgery, which can be influenced by the patients' selection.

### Concluding message

Post-prostatectomy's continence is more frequent in less-aggressive tumors regarding the Gleason score.

### Disclosures

**Funding:** None. **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** University Hospital of Salamanca IRB **Helsinki:** Yes **Informed Consent:** Yes