

Developing a nomogram for prediction of early urinary continence after robotic prostatectomy incorporating patient, MRI and operative factors

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Introduction & Objectives: The aim of this study was to develop a nomogram to predict early urinary continence recovery (EUC) post robotic radical prostatectomy, incorporating pre-op patient factors, MRI determined factors and operative factors including novel operating techniques such as Retzius sparing prostatectomy.

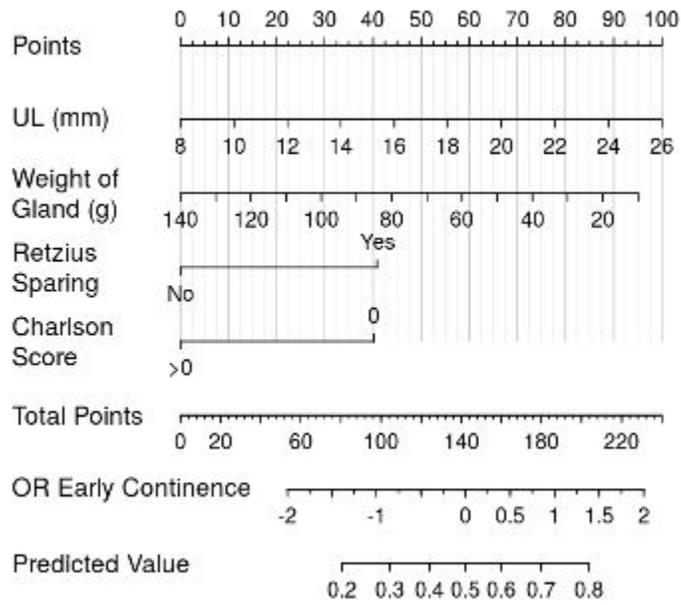
Materials & Methods: Between March 2018 - December 2018, 501 men underwent RARP at our institution. Patient demographics that were tested included age (continuous), body mass index (BMI) [continuous], and Charlsten comorbidities (none vs present). MRI factors included prostate volume (continuous), and external membranous urethral length (MUL, continuous). Peri-op factors included and neurovascular bundle (NVB) sparing (none vs unilateral vs bilateral), Retzius sparing operative technique (yes vs no) and operating surgeon (consultant vs trainee). Continence data were available for 431 patients and were included for analysis. EUC was defined as no pad use at three months postoperatively.

Results: Data sets were complete on 431 patients out of the 501 patients reviewed. EUC was achieved in 55.9% and one pad or less in 78.6%. Covariates on univariate analysis with p values of <0.05 entered multivariable analysis. These included patient age ($p=0.01$), MUL ($p=0.01$), volume of gland ($p=0.03$) and Retzius spare ($p<0.01$). According to receiver operating characteristic (ROC) analysis, the area under the curve (AUC) was 0.656 indicating that the multivariable model may be utilised to predict EUC. The following link represents an online tool for utilizing the nomogram to predict EUC and can be utilised for counselling patients.

<https://caterinagregoriobiosta...>

Nomogram to Predict the Probability of Early Continence after Radical Prostectomy





Calculator

Points of Weight of Gland (g)	0.00
Points of UL (cm)	95.07
Points of Retzius Sparing	0.00
Points of Charlson Score	40.00
Total Points	135.07
OR for Early Continence	-0.16
Probability of Early Continence	0.46

Conclusions: We have proposed a nomogram used at our centre to provide customised counselling regarding EUC for patients undergoing RARP. We have provided weighted scores for preoperative external MUL, age, presence of Charleston comorbidities, gland size, NVB spare status and operative technique. Validation is planned on the subsequent 500 patients at our centre.