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Dixler - La Hulpe / Perwez - 7 & 8 DECEMBER 2018

Validated prospective assessment of urinary, sexual and gastrointestinal Quality of Life after Robotic Assisted Laparoscopic Prostatectomy : beyond continence and erection

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Background

- Continence and erectile function represent major concerns for patients and surgeons after robotic assisted laparoscopic prostatectomy (RALP)
- Analysis of only these results may underestimate the true impact of surgery on Quality of Life (QoL)
- Aim of the study is to prospectively analyze QoL after RALP according to the validated EORTC-PR25 and -C30 questionnaires.

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Material and Methods

Prospective study enrolling 584 patients undergoing RALP in two academic institutions (3 experimented surgeons).

Period : 6 years, from 2010 to 2016

Continence, potency and QoL assessed via ICIQ-SF, IIEF-5, EORTC-PR25 and EORTC-C30

EORTC-PR25:	EORTC-C30:
1. urinary symptoms	• 9 single items (financial impact, fatigue, nausea, pain, dyspnea, insomnia, appetite loss, constipation and diarrhea)
2. bother from incontinence aid	
3. bowel symptoms	
4. treatment related symptoms	
5. sexual activity	• 6 multitem scales (global, social, physical, role, emotional, cognitive functioning)
6. sexual function	

Differences across QoL items was assessed by Wilcoxon rank sum test and association between risk factors and QoL scores was tested via uni and multivariate linear regressions.

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Results

Patient characteristics	n
Age (years)	64 (59-68) 64:7
PSA (ng/ml)	7.1 (4.9-10.2) 9.6±10.9
Pathologic Gleason Score	6+3=3: 265 (45%) 7+3=4: 179 (31%) 7+4=3: 82 (14%) 8: 33 (6%) 9-10: 25 (4%)
pT	2: 385 (66%) 3a: 138 (24%) 3b-4: 61 (10%)
pN	0: 220 (38%) 1: 29 (5%) X: 335 (57%)
Nerve Sparing	None: 127 (22%) Unilateral: 404 (69%) Bilateral: 353 (60%)

Further treatment	n
Radiotherapy	None: 545 (93%) <3 months: 3 (0.5%) <12 months: 27 (5%) <24 months: 9 (1.5%)
ADT	None: 568 (97%) 3 months: 10 12 months: 15 24 months: 16

ICIQ
Pre-op mean ICIQ score was 1.9
77% ICIQ=0 (no leakage)
18% ICIQ=1-6
5% ICIQ=11-21 (significant leakage)

IIEF-5
Preoperative mean score 16 (5-22)
25% no ED (IIEF-5 ≥22)
31% severe ED

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Results

PR25 score modification after RALP

All items of PR25 questionnaire showed a significant deterioration 1mo after RALP and began to normalize after 3mo

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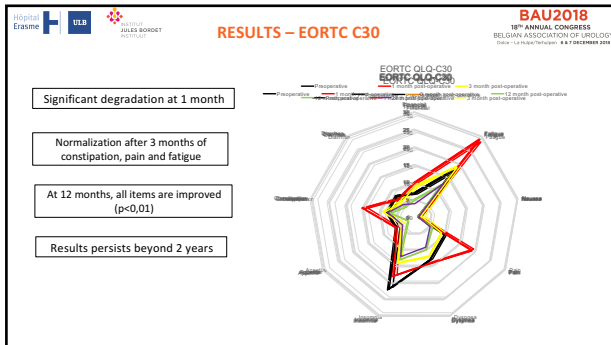
RESULTS – EORTC C30

Significant degradation at 1 month

Normalization after 3 months of constipation, pain and fatigue

At 12 months, all items are improved (p<0,01)

Results persists beyond 2 years



Results

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On multivariate analysis, patients with non-specimen confined disease (>pT3a or pN1 or positive margin) had a significantly higher risk of worse bowel and treatment related symptoms

3mo Bowel symptoms		Univariate			Multivariate		
Age		-0.004	-0.12-0.11	0.94	-0.01	-0.12-0.10	0.84
Pre-op bowel		0.19	0.10-0.28	<0.001	0.19	0.10-0.28	<0.001
Non-specimen confined		1.88	0.28-3.49	0.02	1.75	0.16-3.34	0.03

3mo Treatment related symptoms		Univariate			Multivariate		
Age		0.04	-0.18-0.10	0.54	-0.07	-0.19-0.05	0.26
Pre-op Treatment related		0.46	0.10-0.87	<0.001	0.38	0.00-0.46	<0.001
Non-Specimen confined		1.27	1.28-5.25	<0.001	1.96	0.11-3.81	0.038
Early hormone therapy		15.03	5.40-20.56	<0.001	7.9	0.85-14.9	0.028

Results

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Preoperative sexual activity was more important in determining 3mo sexual outcomes than preoperative IIEF-5 or nerve sparing approach

3mo Sexual outcomes		Univariate			Multivariate		
Age		-0.29	-0.75-0.02	0.04	0.01	-0.36-0.39	0.36
Pre-op Sexual activity		0.22	0.24-0.41	<0.001	0.29	0.19-0.39	<0.001
Pre-op IIEF-5		0.51	0.26-0.76	<0.001	0.08	-0.20-0.37	0.57
*Non-Specimen confined		5.54	-10.9-0.17	0.04	-2.4	-7.7-2.9	0.37
Nerve Sparing Unilateral		3.26	-6.7-11.30	0.42	-1.7	-9.5-6.1	0.67
Nerve Sparing Bilateral		8.75	2.50-15.00	0.006	1.9	-4.5-8.3	0.56
Early Hormone therapy		-29.8	-50.2-9.43	0.004	-22.97	-42.6-2.5	0.09

2 years after surgery, age, preoperative sexual activity and sexual functioning were the most significant predictors of sex related QoL

24 mo Sexual outcomes		Univariate			Multivariate		
Age		-1.44	-1.93-0.9	0.001	-1.11	-1.58-0.65	0.001
Pre-op Sexual functioning		0.34	0.22-0.46	<0.001	0.36	0.23-0.48	<0.001
Pre-op IIEF-5		0.59	0.27-0.89	<0.001	0.06	-0.24-0.37	0.08
*Non-Specimen confined		-6.81	-14.20-0.58	0.07	-2.31	-8.89-4.32	0.49
Nerve Sparing Unilateral		10.67	-0.85-23.19	0.069	3.83	-6.9-14.45	0.48
Nerve sparing Bilateral		37.74	8.17-72.3	<0.001	8.18	-0.76-17.14	0.07
Hormone therapy at 24mo		-40.90	-73.33-8.4	0.01	-29.50	-59.24-0.24	0.052

- Conclusions**
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- In this prospective study, we report detailed data on QoL after RALP via the EORTC PR25 and C30 questionnaires.
 - Urinary, bowel and sexual activity scores returned to baseline values 24 months after surgery
 - Incontinence-aid, treatment related symptoms and sexual functioning may remain significantly deteriorated
 - Patients' age and preoperative sexual activity appear to be more significant than nerve sparing and IIEF5 score in determining postoperative sex related QoL