

The hard truths about post-prostatectomy erectile dysfunction in a conservative Asian society

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Introduction

With earlier detection and intervention for localized prostate cancer and longer lifespans, post-robotic prostatectomy (RP) quality of life (QoL) outcomes such as erectile dysfunction (ED) have become increasingly pertinent. We aim to determine ED prevalence in our post-RP patients and assess the uptake of intervention.

Methods

Upon obtaining ethics approval (NHG DSRB Ref: 2021/00177), patients who underwent RP from 2010 to 2019 were analysed.

Results

Patient demographics

Demographic, tumour- and operation-specific data is shown in *Table 1*.

- $N = 188$
- Mean PSA = 10.8ng/mL
- Median Gleason score = 7

Post-operative QOL outcomes

Post-operative ED outcomes are shown in *Table 2*.

- 90.4% ($n=170$) suffered ED within the first year, but it is unknown how many had pre-existing ED
- Although pre-operative and post-operative International Index of Erectile Function (IIEF) patient questionnaires are part of our protocol, 84.6% ($n=159$) and 89.9% ($n=169$) respectively did not fill them in
- 64.1% ($n=109$) offered penile rehabilitation
- Take-up rate of intervention: 62.4% ($n=68$)
 - Phosphodiesterase type 5 inhibitors (PDE5i): 43.5% ($n=74$)
 - Intracavernosal injections: 4.7% ($n=8$)
 - Penile implant: 0.6% ($n=1$)
 - Vacuum-assisted device: 0% ($n=0$)

Table 2: Post-operative quality of life (QoL) outcomes

Outcome		N	%
Erectile dysfunction	Yes	170	90.4
	No	9	4.8
	Not asked	9	4.8
Penile rehabilitation	Offered and underwent	68	40.0
	Offered but declined	41	24.1
	Not offered	70	41.2
Phosphodiesterase type 5 inhibitors	Yes	74	43.5
	No	96	56.5
Intracavernosal injection	Yes	8	4.7
	No	162	95.3
Penile implant	Yes	1	0.6
	No	169	99.4
Vacuum-assisted device	Yes	0	0.0
	No	170	100.0

Table 1: Patient demographics, tumour-specific and operation-specific data

Demographics		N	%
Race	Chinese	153	81.4
	Malay	8	4.3
	Indian	8	4.3
	Caucasian	6	3.2
	Others	13	6.9
Age at surgery (years)	≤50	3	1.6
	≤60	24	12.8
	≤70	110	58.5
	≤80	50	26.6
	>80	1	0.5
Tumour-specific		N	%
Clinical T stage	1a-c	116	61.7
	2a-c	60	31.9
	3a-b	12	6.4
PSA at diagnosis (ng/mL)	≤4	10	5.3
	>4 to <10	111	59.0
	10 to 20	49	26.1
	>20	18	9.6
Gleason score of biopsy	6	26	13.8
	7	130	69.1
	8	14	7.4
	9	18	9.6
	10	0	0.0
Operation-specific		N	%
Duration (min)	≤240	9	4.8
	≤300	43	22.9
	≤360	58	30.9
	>360	78	41.5
Lymph node dissection	Yes	121	64.4
	No	67	35.6
Nerve sparing	Bilateral	62	33.0
	Unilateral	71	37.8
	No	55	29.3
Gleason score of operative specimen	6	14	7.4
	7	155	82.4
	8	6	3.2
	9	13	6.9
	10	0	0.0

Conclusion

Although post-RP ED is prevalent, it is commonly overlooked during follow-up. Possible barriers include our conservative Asian culture and poor understanding of treatment options. To overcome this, we suggest better patient education regarding penile rehabilitation strategies, and encouraging compliance to IIEF patient questionnaires. This will not only initiate the topic for discussion, but also encourage intervention uptake, and allow us to better quantify the impact of post-RP ED on QoL and the effect of intervention.