

INTRODUCTION AND AIM

Prostate cancer (PCa) is one of the most common solid malignancies and its mortality rate is the second highest among male malignant tumors. In Europe and the United States, the incidence of prostate cancer is the first one among male tumors. In China, the incidence rate is also increasing year by year. It was estimated that there were 60 300 new cases of prostate cancer and 26 600 deaths in 2015. Radical surgery for patients with localized prostate cancer with a life expectancy greater than 10 years can achieve better prognosis. But, currently there was no large sample study of adverse risk factors for urinary function recovery after radical prostatectomy. Therefore, in this study we urgently need to find the adverse risk factors in order to assist clinical treatment

MATERIAL & METHODS

We collected and analyzed the clinical and follow-up data of 126 patients underwent laparoscopic radical prostatectomy in our hospital. Patients with stage $\leq T2a$ adopt intrafascial resection with nerve reserved. Patients with T2 stage and PSA ≤ 10 ng/ml underwent through-fascial resection with nerve reserved. Follow-up: whether there was leakage of urine after surgery, the number of urine pads used each day, when the urine pad was used < 1 block/day, and whether postoperative recovery training was performed. Define the use of ≤ 1 urine pad per day for postoperative urinary recovery

RESULTS

Table 1

Group	Age <70 years	Age ≥ 70 years	P
Cases	62	64	
Age	63.7 \pm 5.1	76.5 \pm 3.2	<0.001
BMI	25.35 \pm 3.66	24.00 \pm 3.11	0.028
PSA (median)	13.41 ng/ml	10.26 ng/ml	0.304
PSA ≤ 10	22	29	0.410
10~20	19	16	
≥ 20	21	19	
Gleason ≤ 6	6	7	0.168
7	18	24	
≥ 8	38	33	

Table 2

Group	Age <70 years	Age ≥ 70 years	P
urinary function recovery time	12.9 w	15.5 w	<0.05
recovery rate (within 12 weeks)	0~28	0~48	
recovery rate (within 24 weeks)	56.5%	37.5%	<0.005
recovery rate (within 48 weeks)	93.5%	82.8%	<0.05
recovery rate (within 24 weeks)	100%	98.4%	<0.05

Table1 :We divide into two groups by different age and recorded their clinical data

Table2: Urinary function recovery results

Table 3 Risk factors of urinary function recovery within 12 weeks

	Univariate logistic regression analyses OR (95% CI)	P	Multivariate logistic regression analyses OR (95% CI)	P
Age ($\geq 70 < 70$ years)	2.16 (1.06~4.41)	0.034	2.87 (1.28~6.47)	0.011
BMI ($> 24 \leq 24$ kg/m ²)	1.12 (1.00~1.25)	0.044	1.15 (1.02~1.30)	0.022
PSA ($> 20 \leq 20$ ng/ml)	1.01 (0.99~1.02)	0.312	1.01 (0.99~1.02)	0.331
Nerve reserved	0.22 (0.08~0.63)	0.005	0.25 (0.08~0.76)	0.014
bilateral/unilateral or none				
Urinary retention length ($> 5 \leq 5$ cm)	1.37 (0.18~10.52)	0.762	1.52 (0.17~13.91)	0.712
Gleason ($> 7 \leq 7$)	1.05 (0.77~1.42)	0.779	0.98 (0.69~1.41)	0.924
Recovery training (yes/no)	2.12 (0.88~5.13)	0.095	1.80 (0.67~4.85)	0.245

Table 4 Risk factors of urinary function recovery within 24 weeks

	Univariate logistic regression analyses OR (95% CI)	P	Multivariate logistic regression analyses OR (95% CI)	P
Age ($\geq 70 < 70$ years)	3.35 (1.02~11.02)	0.047	4.27 (1.16~15.67)	0.029
BMI ($> 24 \leq 24$ kg/m ²)	1.04 (0.89~1.21)	0.589	1.10 (0.92~1.31)	0.311
PSA ($> 20 \leq 20$ ng/ml)	1.01 (0.99~1.02)	0.434	1.01 (0.99~1.02)	0.326
Nerve reserved	0.49 (0.15~1.56)	0.228	0.55 (0.16~1.91)	0.346
bilateral/unilateral or none				
Urinary retention length ($> 5 \leq 5$ cm)	0.41 (0.01~13.59)	0.620	0.46 (0.01~19.15)	0.683
Gleason ($> 7 \leq 7$)	0.95 (0.60~1.51)	0.840	0.87 (0.51~1.51)	0.623
Recovery training (yes/no)	4.64 (0.59~36.84)	0.146	4.73 (0.57~39.63)	0.152

CONCLUSION

Younger age, lower BMI and intraoperative nerve preservation independently predicted recovery of continence within 12 weeks. Age is the influencing factor of continence recovery within 24 weeks.

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