

Significance of Surgical Margin in Patients with Clinical Localized Prostate Carcinoma Who Underwent Radical Prostatectomy

Introduction and Objectives: To evaluate the relationship between clinical progression and surgical margin (SM) according to the pathological result of the patients who underwent radical prostatectomy.

Materials and Methods: There were 186 patients who underwent radical prostatectomy in our clinic in the last 8 years. We excluded the patients who were operated on in the last 2 years. Then we continued with 121 patients. We evaluated age, clinical and pathological stages, preoperative PSA values, biochemical recurrences, follow-up times and overall survival. One patient was included the study group because of his biochemical recurrence (BR) at the 12th month. We took the PSA value for biochemical recurrence 0,4ng/ml and up. General data was analyzed with Chi-square test.

Results: Mean age was 67.8 and mean follow up time 50 months. Surgical margin positive group's follow-up time was 46.6 months, surgical margin negative group's was 48.3 months; there was not significant difference at follow-up times ($p>0.05$). Clinical and demographical parameters were indicated in table 1 and clinical pathological findings according to surgical margin in table 2.

Patients with positive surgical margin had more biochemical recurrence ratios than patients with negative surgical margin in line with literature ($p<0.01$) (Table 3). Postoperative pathological stages were T3 at 11(44%) of SM (+) patients and 8(8.3%) of SM (-) patients. According to these data, positive surgical margin is related to postoperative pathological stage ($p<0.01$) (Table 4).

Conclusion: Surgical margin of radical prostatectomy material is an important pathological indicator about biochemical recurrence at follow-up, and it is a significant finding for foreseeing prostate cancer that overflows the prostate.

Table 1: Clinical and demographical characteristics of patients

	n (Patient number)	Mean	Max	Min
Age (year)	121	67.8	79.0	54.0
Follow Up(Month)	121	48.0	72.0	12.0
Preoperative PSA (ng/ml)	121	11.3	41.0	1.1
Postoperative PSA (ng/ml)	121	0.03	0.60	0.01
Recurrence PSA (ng/ml)	14	1.3	2.5	0.5
Biochemical recurrence time (month)	14	19.5	14.0	48.0

Table 2: Clinical stages and its relationship with surgical margin

Clinical Stage	Surgical Margin (+)	Surgical Margin (-)	Total
cT1c	12(10%)	67(55.3%)	79(65.7%)
cT2a	10(8%)	21(17.3%)	31(25.5%)
cT2b	2(1.6%)	8(7%)	10(8%)
cT2c	1(0.8%)		1(0.8%)
Total	25(20.4%)	96(79.6%)	121(100%)

Table 3: Relationship between surgical margin and biochemical recurrence

	BR (+)	BR (-)	Total
Surgical Margin (+)	6 (%24)	19 (%76)	25(%100)
Surgical Margin (-)	8 (%8.3)	88 (%91.7)	96(%100)
Total	14	107	121

p	<0,01
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Table 4: Relationship between surgical margin and pathological stage

Pathological Stage	Surgical Margin (+)	Surgical Margin (-)
pT2a	2	42
pT2b	3	38
pT2c	9	8
pT3a	6	3
pT3b	2	4
pT3c	3	1
Total	25	96