RESULTS: Mean follow up time was 90 months (median 89). Overall, 57 (9.3%) and 37 (6.0%) patients succumbed to CSM and OCM, respectively. Overall, CSS rates at 5, 10 and 15 years were 93.9, 87.0 and 82.2, respectively. The OS rates at 5, 10, and 15 years were 91.0, 82.1 and 69.6%, respectively. At MVA predicting CSM, year of surgery, GS, pT stage, SM status and LNI emerged as significant predictors of PCa death, after adjusting for other cause mortality (all $p \leq 0.02$). None of the covariates was associated with OCM (all $p \geq 0.1$). The baseline 5 and 10 years competing risk CSM and OCM rates were 5.9 and 12.5% vs. 3 and 5.4%, respectively. Among patients who survived 5 and 8 years after RP, the chance of succumbing to PCa within the next 5 years prevailed that of experiencing OCM. Specifically, the 5years CSM and OCM rates given a 5 and 8 years of survivorship after RP were 7.3 and 6.7% vs. 2.6 and 5.8%, respectively. Conversely, when a 10years survivorship after RP was achieved, OCM became the main cause of death during the next 5 years (9.9 vs. 5.3 for CSM)

CONCLUSIONS: In young patients with HRPCa, PCa represents the main cause of death during the first 10 years after RP. Mortality not related to PCa becomes the main cause of death after 10 years of survivorship. Young patients with HRPCa should be strictly followedup for the first 10 years after RP. A comorbidity profile reassessment should be suggested after 10 years from RP

Source of Funding: none

MP56-11

PROGNOSTIC VALUE OF FOCAL POSITIVE SURGICAL MARGINS AFTER RADICAL PROSTATECTOMY

Ki Bom Kim, In jae Lee, Tae jin Kim, Jong Jin Oh, Sangchul Lee, Seong-Jin Jeong, Sung Kyu Hong, Seok-Soo Byun, Seongnam-si, Korea, Republic of; Choong Hee Noh, Seoul, Korea, Republic of; Sang Eun Lee, Seongnam-si, Korea, Republic of*

INTRODUCTION AND OBJECTIVES: The significance of focal positive margins (FPM) after radical prostatectomy (RP) is unclear. The implication is that FPM are surgically induced, may not represent true tumor extension beyond the prostate, and thus may not affect biochemical recurrence (BCR) free survival. Our objective is investigating the prognostic value of FPM in radical prostatectomy patients, especially in pathologic T2 patients.

METHODS: We retrospectively analyzed data prospectively collected between December 2003 and July 2014 in 2291 consecutive patients with clinically localized prostate cancer who underwent RP at SNUBH in South Korea. Patients who received neo-adjuvant or adjuvant therapy were excluded and follow-up length less than 12 months were also excluded, leaving 1733 patients for analysis. Positive surgical margins were characterized as focal positive margin ($\leq$3 mm in length) or non-focal positive margin ($>$3 mm in length). Patients were grouped as negative margin (NM), focal positive margin (FPM), non -focal single positive surgical margin (NFSPM), and non-focal multiple positive margin (NFMPM). A multivariate Cox analysis was performed to evaluate the significance of FPM in patients with prostate cancer.

RESULTS: Of all patients, 1260 (72.7%) had NM, 114 (6.6%) had FPM, 218 (12.6%) had NFSPM, and 141 (8.1%) had NFMPM. Of the 1264 patients with pT2 disease, 1065 (84.3%) had NM, 62 (4.9%) had FPM, 104 (8.2%) had NFSPM, and 33 (2.6%) had NFMPM. The 5-year BCR free survival for all patients was 90%, 83.4%, 62.9%, 54.4% for NM, FPM, NFSPM, and NFMPM, respectively ($P<0.001$).

The 5-year BCR free survival for organ confined disease was 93.1%, 90.6%, 79.5%, 58.8% for NM, FPM, NFSPM, and NFMPM, respectively ($P<0.001$). On multivariate analysis of all patients, FPM doesn't significantly affect BCR free survival ($p=0.458$). Similarly, there is no significant difference in those with pathologic T2 patients. ($p=0.512$).

CONCLUSIONS: There is no significant difference in BCR between those patients with negative margin and focal positive margin after radical prostatectomy.

Source of Funding: none

MP56-12

THE ROLE OF PERINEURAL INVASION AS A PROGNOSTIC TOOL IN PROSTATE CANCER.

Udit Singhal, Louis Lu, Ted Skolarus, Ganesh Palapattu, Jeffrey Montgomery, Alon Weizer, Brent Hollenbeck, David Miller, Jason Chan, Rohit Mehra, Scott Tomlins, Daniel Hamstra, Felix Feng, Todd Morgan, Ann Arbor, MI*

INTRODUCTION AND OBJECTIVES: Perineural invasion (PNI) in prostate cancer is defined as cancer progression along nerve fibers of the prostate. While PNI has been previously associated with poorer clinical outcomes, its relevance as a predictor of objective long-term endpoints in newly diagnosed prostate cancer patients is not well defined. Therefore, we evaluated the role of PNI as a prognostic marker in patients with localized prostate cancer who underwent eventual treatment with surgery or radiation.

METHODS: We analyzed a prospectively collected cohort of 5,034 consecutive patients with localized prostate cancer treated with either surgery ($n = 4207$) or radiation ($n = 827$) at the University of Michigan between August 1994 and December 2013. The primary outcome measure was metastasis-free survival, and secondary outcomes were PSA-recurrence free survival and overall survival (OS). Covariates included age, treatment year, race, comorbidity index, pre-treatment PSA, Gleason score, and T-stage. Multivariable analysis was performed using a Cox proportional hazards model and mortality rates were estimated using the Kaplan-Meir method.

RESULTS: 22.6% of surgery patients and 37.5% of radiation patients had PNI on diagnostic biopsy. A total of 169 patients developed metastatic disease at a median of 44 months (IQR 21-83 months) after primary therapy. In the combined surgery and radiotherapy cohort, PNI was an independent predictor of distant metastasis and PSA recurrence, but not OS (see table). When separating out those patients who underwent surgery, PNI was independently associated with metastasis, PSA recurrence, and OS. In those patients receiving radiation as primary treatment, PNI was a predictor of metastasis and PSA recurrence, but not OS.

CONCLUSIONS: PNI is an independent predictor of long term, objective outcomes in newly diagnosed prostate cancer patients regardless of subsequent therapy. These data support the importance of PNI as a key factor denoting potentially aggressive prostate cancer and importing a significant increase in the likelihood of eventual metastatic progression.

		All Patients		
Outcome	HR	95% CI	p-value	HR
Metastasis*	1.67	1.17 - 2.38	0.005	1.57
PSA-recurrence*	1.62	1.37 - 1.91	<0.001	1.62
Overall Survival**	1.16	0.91 - 1.49	0.23	1.56

	Surgery			Radiation	
Outcome	95% CI	p-value	HR	95% CI	p-value
Metastasis*	1.01 - 2.44	0.044	2.09	1.12 - 3.92	0.021
PSA-recurrence*	1.34 - 1.97	<0.001	1.73	1.26 - 2.41	0.001
Overall Survival**	1.04 - 2.34	0.030	1.04	0.76 - 1.42	0.82

*Model was adjusted for age, treatment year, race, pre-treatment PSA, Gleason score, T-stage. Whole cohort model also adjusts for treatment type.

**Model was adjusted for age, treatment year, race, comorbidity index, pre-treatment PSA, Gleason score, T-stage. Whole cohort model also adjusts for treatment type.

Source of Funding: none