ROBOTIC ASSISTED RADICAL PROSTATECTOMY IN HIGH RISK PATIENTS: BIOCHEMICAL OUTCOME AND RECURRENCE.

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Introduction
The optimal treatment for patients with high risk prostate cancer is controversial. Options include radiation with or without hormonal ablation versus aggressive surgical resection. Our goal was to determine the pathological outcomes and biochemical failure rate of patients who underwent robotic assisted radical prostatectomy (RARP) for high risk disease.

Material & Methods
After obtaining Institutional Review Board approval, we performed a retrospective review of 663 consecutive patients who underwent RARP between February 2003 and November 2009 at our institution. Patients with preoperative Gleason score of 8-10, postoperative Gleason score 8-10 or PSA levels > 20 ng/ml were considered high risk and were included in the study. Preoperative workup included computed tomography scan, bone scan and/or 3.0T MRI of the abdomen and pelvis. Clinical factors, including biopsy Gleason score, PSA, prostate volume, surgical margin status, perineural invasion, lymphovascular invasion and capsular penetration were evaluated.

Results
A total of 103 patients were included in the study. Median prostate specimen weight (n=95) was 44.5 gm (range: 15-109). Median PSA at biopsy (N=84) was 7.60 ng/ml (range: 0.43- 80). Perineural invasion was present in 96 of 99 specimens (97.0%), lymphovascular invasion was present in 41 of 98 specimens (41.8%) and positive surgical margins were present in 46 of 100 specimens (46.0%). A total of 63 of 95 patients (66.3%) had pT3a disease and 35 of 95 patients had pT3b disease (36.8%). Despite the high percentage of patients with negative outcome predictors, biochemical PSA recurrence (defined as PSA value > 0.2 ng/ml) was present in only 7 of 38 patients (18.4%) with follow-up PSA values available. Median follow-up time was 25.2 months (range: 1.6-59.4).

Conclusion
Early biochemical PSA recurrence data suggests RARP may be an acceptable treatment option for high risk prostate cancer patients. Patient counseling should be focused on the expectations for local control of prostate cancer and on current biochemical recurrence rates, with potential necessity for adjuvant therapy in the future. Further follow-up studies are needed to assess the long term outcomes of high risk patients who undergo RARP.