Risk stratification and early oncologic outcomes following robotic prostatectomy.

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Abstract
BACKGROUND AND OBJECTIVES: Although the popularity of robotic-assisted laparoscopic prostatectomy is assured, little is known about the oncologic outcomes following the procedure.

METHODS: We performed a retrospective cohort study including consecutive patients who underwent the surgery between 2003 and 2007 with at least 6 months of follow-up (n=464). Patients were stratified into low-, intermediate-, and high-risk groups according to D'Amico criteria. Biochemical failure was defined as a PSA > or =0.2 ng/mL.

RESULTS: Of study patients, 256 (55%), 171 (37%), and 37 (8%) were classified as low-, intermediate-, and high-risk, respectively. Over a mean follow-up of 14.1 months (range, 6.0 to 55.3), 7.3% experienced biochemical failure. Biochemical disease-free survival at 30 months was 94%, 79%, and 73% among patients in the low-, intermediate-, and high-risk groups, respectively, (P<0.001). Preoperative risk stratification was strongly associated with biochemical failure, with hazard ratios of 5.04 (95%: 1.52 to 16.7; P<0.001) and 7.04 (95%: 1.39 to 35.6; P < 0.001) for intermediate- and high- over low-risk groups, respectively. The ability of risk stratification to predict biochemical failure had an area under the receiver operator characteristic curve of 0.74.

CONCLUSION: Robotic prostatectomy provides
excellent cancer control outcomes for clinically localized disease.