Clinical and pathological outcome after radical and nerve sparing anterograde prostatectomy for bioptic Gleason score ⩾ 7 and PSA ⩾ 10 ng/ml

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INTRODUCTION & OBJECTIVES: Aim of our study was to evaluate long term clinicopathological outcomes in intermediate to high risk patients but otherwise clinically localized prostate cancer (PCa) and Gleason score (GS)⩾7 treated by anterograde radical prostatectomy (ARP), and to analyze the well known predictors of progression in this cohort

MATERIAL & METHODS: We prospectively recruited 183 patients with GS⩾7, preoperative PSA⩾10 ng/ml and clinically localized PCa undergoing to ARP from 2000 to 2010,selected from our institutional database of 1328 patients.Clinico-pathological features were evaluated. Survival analysis were performed using the Kaplan Meier method. Logistic regression was used to determine predictors of unfavorable disease

RESULTS: 51.3% of patients presented pathological GS 7,while 48.7% had GS 8-10. We obtained a prevalence of extracapsular extension (79.8%) at final pathological examination. Incidence of positive surgical margins was 20.7% with a prevalence of pT3-4 (86.9%), 7.1% with concomitant lymphnode involvement. The mean follow up was 39.1 months (median 31.5,range 6-119). The progression free survival rate for all patients was 64.8 and 55.1% at 3 and 5 years respectively.Above all 25.7% of patients had biochemical recurrence (BCR) and mean time to biochemical failure was 13 months (median 11,range 3-56). Of 102 patients with bioptic GS 7,in 79.4% it was confirmed at the final pathological specimen,while in 20.6% there was an higher pathological GS (8-10). A statistically significant difference was found in BCR-free survival comparing the 5-year

survival rates for GS and pTNM.For those with pathologic GS 7 and 8-10,BCR free survival rates were 63.9 and 45.4% respectively (p=0.015), while for pT2, pT3a and pT3b were 78.3, 68.6 and 28.9% respectively (p0.05).Bioptic and pathological GS,pTNM,surgical margin status and lymphnode involvement demonstrated to be predictors of unfavorable disease at univariate logistic regression. On the contrary at the multivariate logistic regression preop PSA level,bioptic and pathological GS and surgical margin status had no statistically significant impact on BCR-free survival.The multivariate Cox model showed tumor stage as the only independent prognostic factor for BCR,especially seminal vesicle invasion to be the only independent prognostic factor (p=0.018)

CONCLUSIONS: Cancer specific survival in our study indicated that selected patients with intermediate to high risk PCa who undergo RP can experience a survival benefit,even when NS surgery was adopted through men with unfavorable disease fared poorly