

**UNI-INSTITUTIONAL LONG TERM RESULTS OF HIGH DOSE RATE  
BRACHYTHERAPY COMBINED TO EXTERNAL BEAM RADIOTHERAPY  
FOR LOCAL AND LOCALLY ADVANCED PROSTATE CANCER**

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**PURPOSE-** The biochemical control (BC) of prostate cancer is influenced by the dose given by radiotherapy and High-dose-rate brachytherapy (HDR) is one method for dose-escalation when associate or not to external beam radiotherapy (EBRT).

**METHODS** - Patients with Gleason scored (GS) histological diagnosis, clinical stage T1 to T3a, no evidence of metastatic disease, prostate volume <60cc and initial PSA (PSAi) <60 mg/ml treated at AC Camargo Cancer Center, Sao Paulo, Brazil. were evaluated.

**RESULTS** –273 patients treated between 1997 and 2005 with combination of HDR and EBRT were evaluated. Median age and FU time were 64.7 and 10.3 years, respectively. Two hundred thirteen (78.0%) patients had FU longer than 5 years. Actuarial 10-year OS, CSS and BC were 89.8%, 63.6% and 71.8%, respectively. On univariate analyses GS<7, clinical stage<T2b, low risk group (LR), absence adjuvant androgen deprivation (ADT), age>65, PSAi<10, localized EBRT and three dimensional HDR planning were associated with improved CSS and BC. PSAi and age were not favorable associated to BC. Multivariate Cox regression analyses confirmed LR, GS<7, PSAi<10, absence of ADT, and age<65 years as predictors of improved CSS and BC. For OS only LR was confirmed as predictive factor.

**CONCLUSION** - The present data represents a unique uni-institutional study at long FU for the given technique and the comparison with the current literature data confirms the excellent results achieved with this treatment combination.

**KEY WORDS:** prostate cancer, radiotherapy, high-dose rate brachytherapy, biochemical control, PSA