

**LONG TERM ONCOLOGIC OUTCOMES OF PATIENTS TREATED WITH HIGH INTENSITY FOCUSED  
ULTRASOUND FOR LOCALIZED PROSTATE CANCER**

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**OBJECTIVE:** To report long term oncologic outcome of HIFU-Ablatherm in patients with localized prostate cancer.

**PATIENTS AND METHODS:** From January 1996 to October 2010, 528 patients with localized PCA have been HIFU treated. Of these, 260 achieved more than five years follow-up and were considered in this study. Data on Prostate-specific antigen(PSA), clinical stage, cancer control, recurrence and complications have been prospectively collected and retrospectively analyzed in order to define long term oncologic efficacy, recurrence defined as PSA nadir + 2 (Phoenix definition) or positive biopsies or secondary treatment patterns.

**RESULTS:** 255 patients with more than 5 years of reliable follow-up data were identified. Mean follow-up was 7.2 years (5-12.3 years). Median age at time of treatment was 73 years (51-84), median PSA 7,7 ng/ml (1.1-44), median prostate volume 37g (range 15-70) and median Gleason score 6 (range 6-9). Stratification according to d'Amico's risk group was low, intermediate, and high in 117(46%), 128 (50%) and 10(4%) of patients, respectively. Control biopsies were available in 143(56%) patients within 3 years of HIFU therapy and 79(55%) were reported as negative at 12 months. Recurrence free survival rate at 5 yr was 73%. Secondary therapy free survival rates were 84%, 72%, and 45% ( $p<0.001$ ) for low-, intermediate-, and high-risk patients, respectively. 43 (17%) patients received re-treatment with HIFU. Ninety percent of patients presented with grade 1 complication (dysuria).

**CONCLUSIONS:** Adequate local control and recurrence free survival achieved with HIFU at a long term follow-up are circumscribed for low risk patients.