FOCAL THERAPY WITH HIGH INTENSITY FOCUSED ULTRASOUND IN LOW RISK PROSTATE CANCER

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Introduction & Objectives: Prostate cancer (PCa) therapy undeniably exposes patients to a risk of impotence and incontinence. Alternatively, High Intensity Focused Ultrasound (HIFU) therapy allows focal non-invasive ablation of detected PCa in a single session. The aim of this study was to evaluate clinical efficacy and side effects of a single focal HIFU session in low risk PCa patients.

Material & Methods: 66 patients (T1c, Gleason 6, PSAi <10ng/ml) who refused both definitive radical therapy and conservative management and had a strong desire to preserve potency were treated. Men with strong obstructive symptoms, severe calcifications in the target area or severe prostatitis/abscess history were excluded. Treatments were performed with Ablatherm integrated imaging (EDAP-TMS, Lyon)

Results: 53% of the patients had positive staging biopsies on the right, 47% on the left lobe. Initial PSA (PSAi = at diagnosis) was median 5.58 (1.02-10.43) and increased to a PSA at treatment (PSAtr) of median 6.01 (0.2-11.4) within 4 months, corresponding to a median pretherapeutic PSA velocity of 1.29 ng/ml/year.

Conclusions: Focal HIFU demonstrated >90% potency preservation while treating diagnosed prostate cancer lesions. There were no significant therapy related intra-/postoperative side effects within the follow-up period. It results in a significant deceleration of PSA velocity from pre-HIFU 1.29 to post-HIFU 0.12 ng/ml/year by treating only 25% of the total prostatic volume.