TREATMENT WITH FOCAL HIFU IN LOW-INTERMEDIATE RISK LOCALISED PROSTATE CANCER: OUR INITIAL EXPERIENCE

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Introduction: High Intensity Focused Ultrasound (HIFU) as a focal therapy in the treatment of localized prostate cancer was shown to provide acceptable short to medium term disease control with negligible genitourinary side effect. We report the oncological and functional outcomes in our initial experience with focal HIFU treatment.

Methods: Since 2012, a total 34 patients diagnosed with low-intermediate prostate cancer were treated with focal HIFU. Diagnosis was based on multiparametric MRI followed by transrectal targeted and routine systematic prostate biopsy. Metastatic disease was excluded in the intermediate risk patients by bone scintigraphy. HIFU application as a focal therapy was done by Quadrant and hemiablation of prostate gland depending on tumor location.

Results: Of 34 patients, 21 (61.8%) and 13 (38.2%) had low and intermediate risk disease, respectively. Mean follow-up was 21±3.4 (8-47) months. Mean preoperative PSA level was 8.7±2.4 ng/ml and mean PSA nadir was 2.2±0.8 ng/ml 3 months after HIFU application. 18 patients accepted follow-up TRUS biopsy and only 1 (among intermediate risk group) had de novo disease. That patient was undergone to definitive treatment. During follow-up period, 31 patients were pad free urinary continent (91.2%). None of urinary incontinent patients (3) were total incontinent and needed for continence surgery. 25 of 34 patients was preoperatively potent. After HIFU treatment, 21 patients (84 %) were potent without using any PDE 5 inhibitors.

Conclusion: Focal HIFU is minimally invasive method in treatment of low-intermediate risk localized prostate cancer and has acceptable rate of cancer control with low genitourinary side effect.