

Focal treatment of prostate cancer with HIFU

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Introduction: To report the functional and oncological outcomes of focal HIFU (hemiblation) in patients treated for localized prostate cancer in primary care

Material and Methods: In a multicentre study, patients with localised unilateral prostate cancer (PCa) were treated with focal HIFU (hemiblation). Inclusion criteria were a unilateral PCa after multiparametric MRI + 12 randomized biopsies and 2 targeted biopsies on each suspicious MRI lesions, Gleason score ≤ 7 (3+4), PSA < 10. All patients were treated with the Ablatherm® device. The follow-up was performed with PSA and systematic control biopsies at 6 or 12 months.

Results: A total of 42 patients were included in this study in 8 centres. Mean PSA before HIFU was 5.1 ± 0.51 ng/ml, at 6 months after HIFU 2.7 ± 0.56 ng/ml and at 12 months 3.6 ± 1.01 ng/ml. The prostate volume before treatment, at 6 months and at 12 months was 38.6 ± 14 cc, 36.2 ± 14 cc and 34.4 ± 16 cc respectively. Control biopsies were available in 22 patients: 15 negative and 7 positive. In the treated lobe, the negative biopsy rate was 90.9% and in the untreated lobe 77.3%. The ICS and IPSS before and after treatment were similar. The mean IIEF score before focal HIFU was 16.8 ± 2 and at 6 and 12 months was 14.6 ± 3 and 18.2 ± 2 respectively. The QLC 30 was also not modified after treatment. A salvage treatment was performed in 4 patients with positive biopsy: 2 second HIFU treatment, 1 robotic radical prostatectomy and 1 EBRT with no complications.

Conclusion: Focal HIFU is feasible and safe for patient with unilateral localized PCa with minimum side effects. The negative biopsy rate in the treated lobe was 90.9%. In case of recurrence, any salvage treatment can be offered.