Medium-term oncological outcomes in a large cohort of men treated with either focal or hemi-ablation using HIFU for primary localized prostate cancer

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OBJECTIVE

To report medium-term oncological outcomes in patients receiving primary focal treatment with HIFU for PCa.

PATIENTS AND METHODS

Consecutive men treated by means of primary focal HIFU for PCa at two centres by 6 treating clinicians were assessed. Patients were submitted to either a focal ablation or hemi-ablation using HIFU (Sonablate 500). The primary objective of the study was to assess medium-term oncological outcomes defined as overall survival, freedom from biopsy failure, freedom from any further treatment and freedom from radical treatment after focal HIFU. The secondary objective was to evaluate the changes in pathological features among patients treated by means of focal HIFU over time. We also assessed the relationship between year of surgery and 5-years retreatment probability.

RESULTS

1,032 men treated between November 2005 and October 2017 were assessed. The median age was 65 yrs and median prostate-specific antigen was 7 ng/ml. The majority of patients had Gleason score of 3+4 or above (80.3%). Median follow-up was 36 months (IQR: 14-64). The overall survival at 24, 60 and 96 months was 99%, 97% and 97%, respectively.

Freedom from biopsy failure, defined as absence of Gleason 3+4 disease, was 84%, 64% and 54% at 24, 60 and 96 months. Freedom from any further treatment was 85, 59 and 46% at 24, 60 and 96 months, respectively. Roughly 70% of patients retreated received a 2nd focal treatment. Freedom from radical treatment was 98%, 91% and 81% at 24, 60 and 96 months. During the study period we have seen an increase in the proportion of patients undergoing focal HIFU with Gleason 3+4 disease and with T2 mpMRI staged disease. Finally, we report a reduction over time in the proportion of men undergoing re-treatment within 5 years of first treatment.

CONCLUSIONS

Focal HIFU for PCa is a feasible therapeutic strategy with acceptable survival and oncological results, with a reduction in the 5-year retreatment rates over the last decade. Re-do focal treatment is a feasible technique whose functional and oncological outcomes have still to be evaluated.

FULL ARTICLE

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