

HIGH INTENSITY ULTRASOUND (HIFU) IN LOCALLY ADVANCED PROSTATE CANCER

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INTRODUCTION: Radical surgery of locally advanced PCa shows a significant PCa recurrence rate. Its indication is controversial. Today, external radiation and/or hormonal ablation are the primary therapies in this advanced stage of disease.

METHODS: As alternative/adjuvant therapy, transrectal HIFU at 3.0 MHz is applicated in one session under spinal anaesthesia. Treatment goal is to coagulate transrectally PCa, to postpone/avoid systemic side effects and to minimize PCa/therapy related complaints. Follow up: PSA, sextant blopsie, complaint analysis.

RESULTS: 24 patients 0 66 years (54-84) with PSAi > 25 ng/ml 0 40 ng/ml (26-133) were included and had a follow up of 0 155 days (43-763). Gleason sum of staging biopsies was 17% (2-4), 17% (5-6), 66% (7-9). 48% of the patients had a antihormonal pretreatment 0-3 months(1-12) stopped at the day of HIFU. After the treatment of 0-103 min (32-197) patients left hospital within 23 hours. Sextant biopsies in follow up (0 1,6 sets/patient) showed in 50 % no evidence of PCa, but necrotic/fibrotic tissue. In the remaining 50% of cases PCa volume was reduced by 80 % with option for a second session. PSA Nadir 0,1 ng/ml (0-13) was reached after 0 51days. Side effects: 2x rectourethral fistula, 4x stress incontinence 1°- 11°, 90 % obstruction due to necrotic tissue (TURP 33 %) and 56 % UTI were registered in follow up. QOL 0 2 before / 0 3 after; IPSS 0 13 before / 0 9 after did not differe significantly.

CONCLUSIONS: HIFU related side effects are in majority caused by obstruction/UTI and occur within the first 6 weeks after treatment. HIFU showed high local efficacy for local tumor debulking. A negative biopsy rate of 50% after a single treatment, tumor mass reduction of 80% in residual cases and a PSA Nadir at 1 ng/ml (0PSAi 40 ng/ml, 66% Gleason 7-9) are promissing in this palliative approach for locally advanced PCa cases.

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