674

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COMPARATIVE MORBIDITY BETWEEN SALVAGE HIGH INTENSITY FOCUSED ULTRASOUND AND CRYOTHERAPY FOR RADIORECURRENT PROSTATE CANCER

Hypothesis / aims of study
High intensity focused ultrasound (HIFU) utilizes focused ultrasound waves to destroy tissue. Wither as primary or salvage modality, HIFU is increasingly being promoted in the management of prostate cancer (PCa). Our primary objective is to assess the adverse event rate after salvage HIFU in patients with radiorecurrent PCa. We compared the results with salvage Cryotherapy (CRYO) adverse events which is another minimal invasive modality.

Study design, materials and methods
We retrospectively reviewed the adverse events of all patients who underwent salvage HIFU for recurrent PCa after Radiotherapy (2006-2010). The first equal cohort of patients who underwent salvage CRYO was selected for comparison (1995-1998). Continues variables were compared with Mann Whitney test, while the categorical variables were analyzed with Fisher Exact test. Statistical significance was set at 0.05.

Results
In all, 64 patients underwent salvage HIFU and the adverse events were compared to the first 64 patients after salvage CRYO. There was no difference in the median age for both cohorts. CRYO group had higher pre-salvage PSA (9.2 vs 3.1 ng/dl). Salvage HIFU had lower urinary incontinence (4.6% vs 53%) and urinary retention rate (6.2% vs 28%). Perineal pain rate was lower in the HIFU group (5% vs 24%). There was no bladder neck contracture in the HIFU group. The rate of postoperative hematuria was similar in both modalities. Recto-Urethral fistula rate and urethral sloughing rate were low in both modalities (3.1% and 1.5%, 1.5% and 3.1% respectively).

Interpretation of results
Most adverse events were mild and temporarily in both modalities. Salvage HIFU cohort had lower adverse events. Serious complications rate were low and comparable in both modalities.

Concluding message
HIFU is a feasible salvage procedure in patients with radio-recurrent PCa. Salvage HIFU has lower adverse events in comparison to salvage CRYO in this group of patients.

Variables	**Salvage HIFU 2006-2010 (n=64)**	**Salvage Cryotherapy 1995-1998 (n=64)**	**P Value**
Age	67	66	NS
Pre Salvage PSA	3.1	9.2	**<0.05***
Incontinence (mild/moderate)	3 (4.6%)	34 (53%)	**<0.05****
Incontinence requiring surgery	1 (1.5%)	2 (3.1%)	NS
Perineal pain	3 (5%)	14 (24%)	NS
Recto-urethral Fistula	2 (3.1%)	1 (1.5%)	NS
Urinary Retention	4 (6.2%)	18 (28%)	**<0.05****
Gross Hematuria	7 (11%)	7 (11%)	NS
Urethral Sloughing	1 (1.5%)	2 (3.1%)	NS
Bladder Neck Contracture	0	6 (9.3%)	**<0.05****
Urinary Tract Infection	6 (9.3%)	8 (12.5%)	NS

Table 1: Postoperative morbidity between salvage High intensity focused ultrasonography (HIFU) and salvage Cryotherapy. * Mann Whitney test. ** Fisher Exact test.

Disclosures
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