EXPERIENCE OF TRANSRECTAL HIGH-INTENSITY FOCUSED ULTRASOUND FOR TREATMENT OF PATIENTS WITH BIOCHEMICAL FAILURE AFTER RADICAL PROSTATECTOMY

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OBJECTIVE
We are reporting on our experience of high intensity focused ultrasound (HIFU) treatments on a group of patients after radical prostatectomy biochemical failures.

METHODS
HIFU therapy was performed on a group of 11 patients that had PSA failure observed after radical prostatectomy. The Sonablate\(^\text{\textregistered}\) 500 was used to treat from the bladder neck area to before the musculus sphincter urethrae.

RESULTS
The 11 patients (ages 62–76) had a pre-HIFU PSA level of 0.317-3.08ng/ml (median 0.542) and a time of 7 - 130 months between the radical surgery and HIFU (median 21 months), and a pre-radical PSA levels of 4.3 – 32ng/ml (median 9.9). The 11 patients had 14 HIFU treatments, with treatment times between 15-42 min (median 32.5 min.), none had any complications during surgery, and had an average of 6 days of catheterization after HIFU therapy with 5-26 months follow-up on the patients (median 8 months), there were two patients with Grade 1 incontinence, and one with Grade 2, and one patient had a recto-urethral fistula. The patients all experienced a PSA nadir after HIFU within 1-4 months and 3 patients had a nadir PSA of less than 0.1ng/ml, 2 patients were 0.1-0.2ng/ml, 3 patients were 0.2-0.3ng/ml, and the remaining 3 patients were above 0.3ng/ml.

CONCLUSION
Although it will require more clinical study and follow up to confirm this, it appears that HIFU could be a beneficial treatment option for patients who have failed a radical prostatectomy for localized prostate cancer, because of its potential to be applied several times.

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