

Focal ablative salvage therapy for radio-recurrent prostate cancer: 6 year oncological and safety outcomes

INTRODUCTION AND OBJECTIVE:

Radiotherapy is effective in the treatment of non-metastatic prostate cancer. When recurrence occurs, patients are usually managed with watchful waiting and systemic therapy due to significant urinary and rectal morbidity resulting from salvage prostatectomy. Focal ablative salvage therapy (FAST) may provide oncological control with fewer adverse effects. We report on outcomes following FAST using high intensity focused ultrasound (HIFU) or cryotherapy.

METHODS:

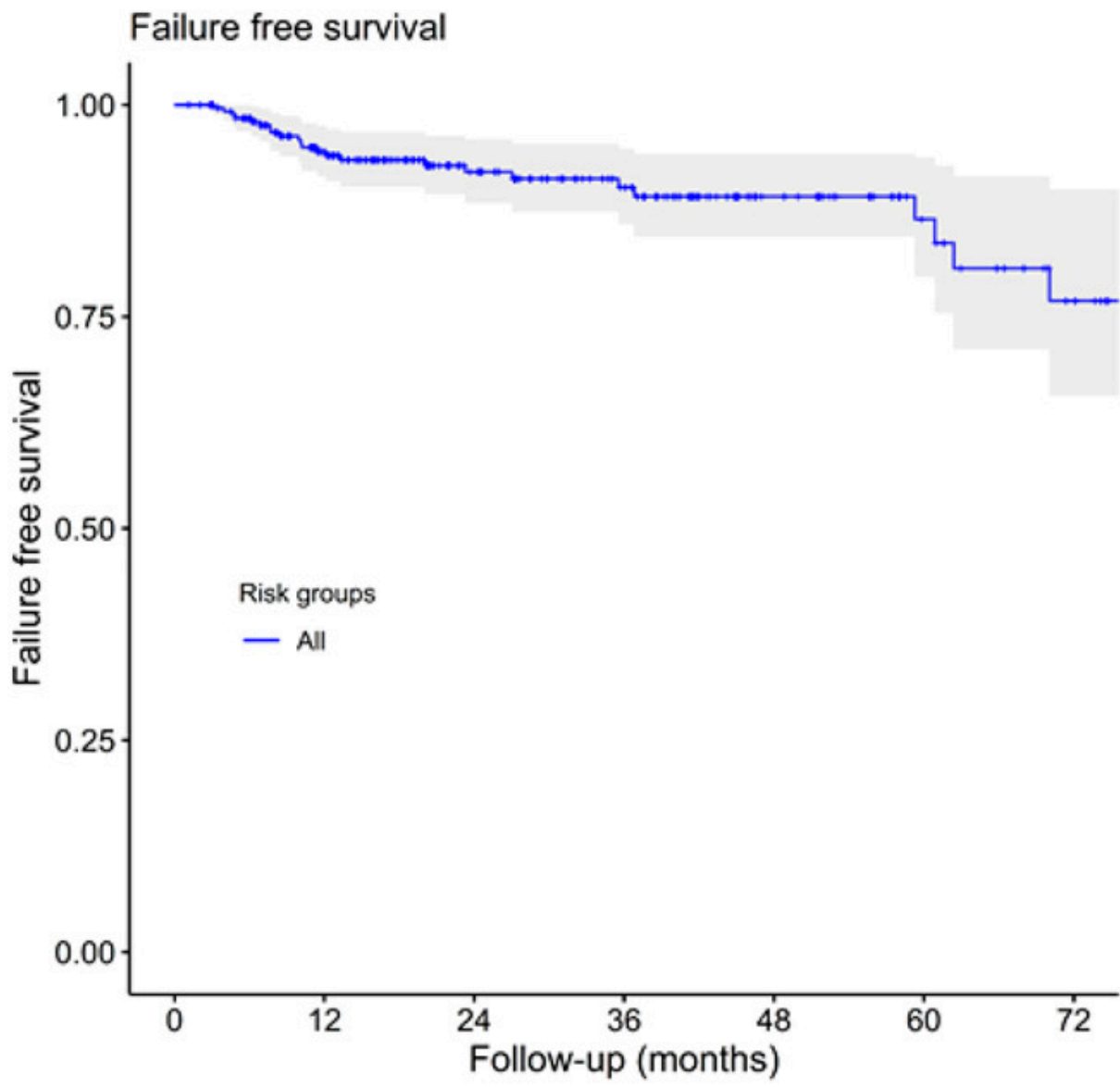
Within the UK's HEAT and ICE prospective registries, 288 consecutive patients across 8 sites underwent FAST for recurrence after radiotherapy (11/2006-7/2020). 221 (76.5%) underwent HIFU and 67 (23.2%) underwent cryotherapy (for mostly anterior or T3b disease). Follow-up data was available in 265 cases. Primary outcome was failure-free survival (FFS) defined as avoidance of systemic therapy, whole-gland treatment, metastases or prostate cancer-specific death. Secondary outcomes were retreatment-free survival, overall survival and adverse events.

RESULTS:

Median (IQR) age was 70 years (66-74) and PSA 5.3 ng/ml (3.3-8.2). 188/288 (65.3%) had rT2 and 68 (23.6%) rT3 disease, 105 (36.5%), 89 (30.9%) and 62 (21.5%) had ISUP Grade Group 2, 3 and >3 respectively. Overall median (IQR) follow-up was 23.3 months (12.6- 44.9). FFS (95% CI) at 6 years was 77% (66-90%), respectively [Figure 1]. Retreatment-free survival at 6 years was 77% (66-90%) [Figure 2]. Overall survival (95% CI) at 6 years was 82% (73-94%). Adverse events were reported in 7.3% (21/288) patients. Overall, 1 (0.3%) was managed for fistula formation, 17 (5.9%) were treated for urine infections, 1 (0.3%) for haematuria managed as an outpatient and 1 for pubic bone osteitis.

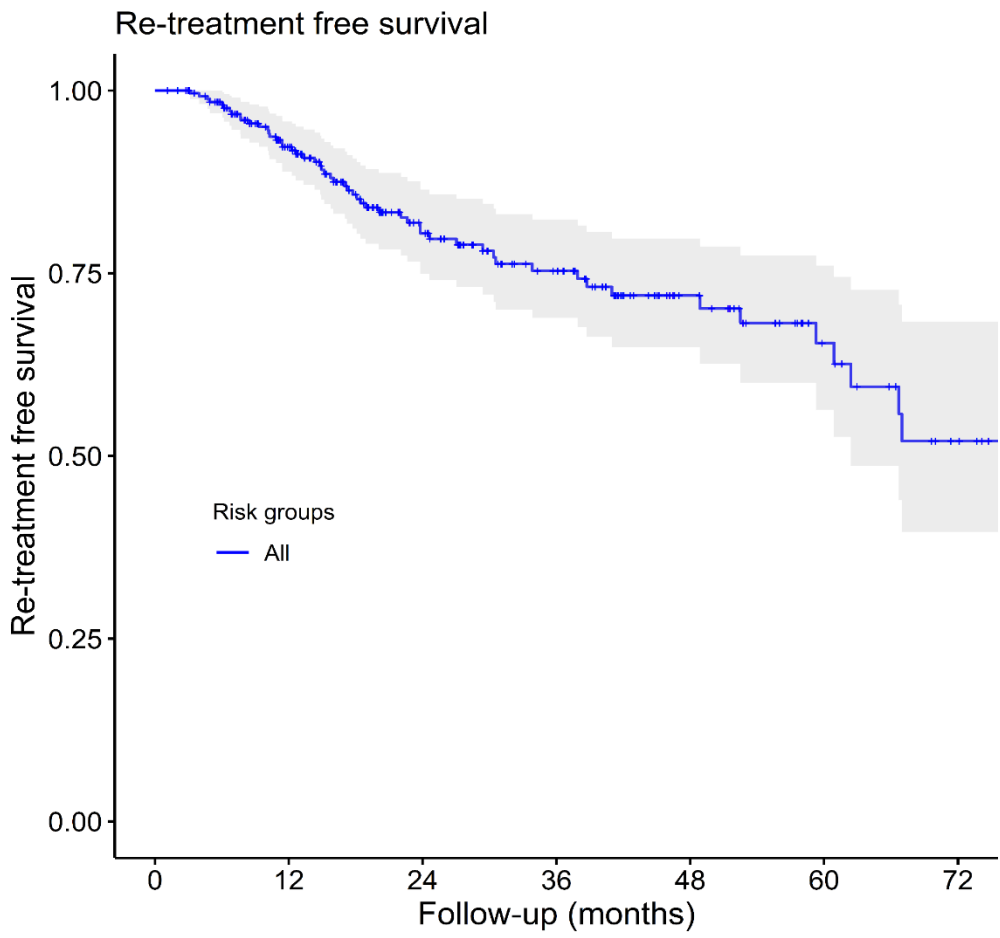
CONCLUSIONS:

Focal ablative salvage therapy for radio-recurrent prostate cancer has low rates of significant adverse events and provides good short to medium-term oncological control.



Number at risk

	0	12	24	36	48	60	72
All	265	197	122	88	51	31	19



Number at risk

All	265	192	110	76	42	23	11
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CANCER CONTROL OUTCOMES FOLLOWING FOCAL THERAPY USING HIFU IN 1,379 MEN WITH NON-METASTATIC PROSTATE CANCER: A MULTI-INSTITUTE 15-YEAR EXPERIENCE

INTRODUCTION AND OBJECTIVE:

Focal therapy aims to treat areas of cancer to confer oncological control whilst reducing treatment-related functional detriment. We report oncological outcomes and adverse events following focal HIFU for treating non-metastatic prostate cancer.

METHODS:

1379 patients with 6 months follow-up or greater prospectively recorded in the HEAT registry from 13 UK centres (2005-2020) were analysed. 5-year follow-up or greater was available in 325 (24%). Focal HIFU therapy used a transrectal ultrasound-guided device (Sonablate, Sonacare). Failure-free survival (FFS) was primarily defined as avoidance of no evidence of disease to require salvage whole-gland or systemic treatment, or metastases or prostate cancer-specific mortality. Differences in FFS between D'Amico risk groups were determined using log rank analysis. Adverse events were reported using Clavien-Dindo classification.

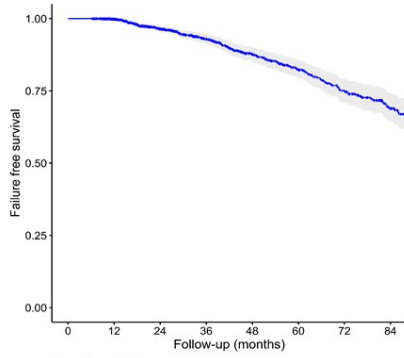
RESULTS:

Median (IQR) age was 66 years (60-71) and PSA 6.9 ng/ml (4.9- 9.4) with D'Amico intermediate in 65% (896/1379) and high-risk in 28% (386/1379). Overall median follow-up was 32 (17-58) months; for those with ≥ 5 years follow-up 82 (72-94). 252 had repeat focal due to residual or recurrent cancer; overall 92 patients required salvage whole-gland treatment. Overall, Kaplan-Meier 7-year FFS was 69% (64-74%) [Figure 1a]. 7-year FFS in intermediate and high-risk cancers was 68% (95%CI 62-75%) and 65% (95%CI 56-74%) ($p=0.3$) [Figure 1b]. Kaplan-Meier 7-year FFS in patients with at least 5 years follow up was 69% (64-74%). No difference in FFS (95% CI) at 7 years were demonstrated between intermediate and high- risk disease (68% (62-75%) vs 65% (56-74%)) respectively, $p=0.3$. Clavien-Dindo >2 adverse events occurred in 0.4% (6/1379).

CONCLUSIONS:

Focal HIFU in carefully selected patients with clinically significant prostate cancer, with 6 and 3 in 10 patients having intermediate and high-risk cancer, has good cancer control in the medium term.

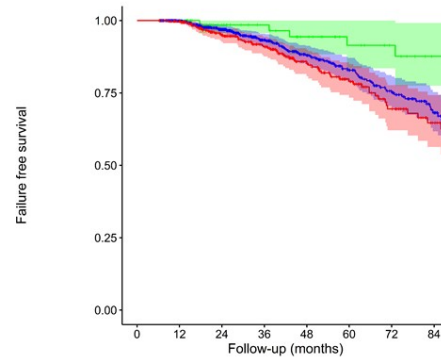
1A



Number at risk

All	1378	1231	855	604	421	293	203	118
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1B



Number at risk

Low risk	84	77	58	49	41	31	24	17
Intermediate risk	895	787	528	347	245	167	119	66
High risk	386	360	269	208	135	95	60	35

Figure 1: Kaplan- Meier curves of Failure Free Survival (FFS) with 95% confidence intervals. FFS is defined as transition to whole-gland salvage treatment or third focal therapy treatment, systemic treatment, development of prostate cancer metastases or prostate cancer specific death (A) all patients with at least 6 months follow up, (B) 1365 patients stratified per D'Amico low (green line), intermediate (blue line) and high (red line) risk group. Log-rank analysis of D'Amico intermediate vs high risk disease, $p=0.3$.