

LOCALIZED PROSTATE CANCER: EFFICACY OF THE TRANSRECTAL HIGH INTENSITY FOCUSED ULTRASOUND (HIFU) TREATMENT

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Objective: To evaluate the efficacy of the HIFU treatment for localized prostate cancer, and to determine the factors affecting the outcome.

Méthode: 102 patients with prostate cancer stage T1-T2 and non candidates for radical prostatectomy has been treated with HIFU (Ablatherm™, EDAP-Technomed). The disease progression (failure) was strictly defined by any positive sample at control biopsies, whatever the PSA level, or by 3 consecutive increases in PSA levels in case of negative biopsies. Success rates were calculated using survival curves (Kaplan-Meier method). The success rates stratified according to the disease risk factors were compared using Log-Rank tests.

Results: At inclusion, patients baseline characteristics were (mean \pm standard deviation): age 70.8 (\pm 6.13) years, PSA 8.38 (\pm 4.8) ng/ml, prostate volume 33.3 (\pm 16.71) cc. The population mean follow-up was 19 months (3 à 76 months). The overall success rate was 66%, and increased up to 81% for patients with a baseline Gleason score under à 7. Indeed, statistically significant variations of the overall success were observed dependently of the initial PSA level, of the Gleason score and the number of positive samples at the pre treatment biopsy:

	PSA (ng/ml)		Gleason Score		Positive Samples	
	≤ 10	> 10	≤ 6	≥ 7	1-4	5-6
success	73%	50%	81%	46%	68%	40%
P	0.02		0.0002		0.01	

Conclusion: These results demonstrate that the HIFU therapy is a valuable treatment option for patients with localized prostate cancer non candidates for surgery. The success rate is influenced by the usual disease related prognostic factors, high risk patients still needing a close monitoring for possible disease progression.