

FOCAL THERAPY FOR PROSTATE CANCER: INITIAL EXPERIENCE WITH CRYOTHERAPY.

M. Durand, E. Barret, R. Sanchez-Salas, M. Galiano, D. Prapotnich, F. Rozet, X. Cathelineau

Department of Urology, Montsouris Institute, University Paris Descartes, Paris, France

Department of Urology, Pasteur Academic Hospital, Nice, France

Introduction: To assess intermediate follow-up of focal cryotherapy for organ-confined prostate cancer (PCa) in selected patients.

Material & Methods: Between January 2009 to March 2012, patients with localized prostate cancer were assigned to focal cryotherapy protocol. Inclusion criteria were: unilateral disease, clinical stage of T1c to T2a, PSA value <10 ng/ml, maximum positive biopsies < 33 %, maximum positive core involvement < 50 %, Gleason score \leq 6 (3+3), no extraprostatic extension disease. No previous prostate cancer-related treatment was accepted (Table 1). Hemi-ablation was carried out with the PreciseTM cryoablation system using ultra-thin 17 gauge (1.47mm) cryoablation needles (Galil Medical, Inc). Oncological and functional outcomes were analyzed in the follow-up. Control biopsies were done at 1 year. Treatment failure was defined as a positive biopsy or need for salvage therapy.

Results: Forty-eight patients with a mean age of 67 yo were included. Mean follow-up was 14.4 months (2.4-33.6). Negative control prostate biopsies were 82% (28/34) of the treated lobes leading to 15% (7/48) of second treatment. The mean PSA value dropped significantly at 3 months (- 55%) (Figure 1). Urinary symptoms were of comparable. After a slight decrease of the IIEF-5 score at 3 months, no difference occurred after 6. Complications included 15% and 4% of grade I and II, respectively (Clavien classification).

Conclusions: Focal cryotherapy is a compelling low-morbidity option in selected patient in localized low-risk PCa with oncological efficacy similar to that of global treatment. Longer follow-up is expected for further outcomes about the biochemical recurrences.

Variables	n
Patients, no.	48
Age, yr, mean (range)	66,6 (50,4-77,1)
Follow-up time, months, median (range)	13,2 (2,4-33,6)
BMI, kg /m ² , mean (range)	25,8 (21-44)
Medical history, no. (%)	14 (33,3)
Clinical stage, no. (%)	
T1c	42 (88)
T2a	6 (12)
MRI prostate volume, ml, mean (range)	44,3 (23-95)
Preop PSA, ng/ml, mean (range)	6,1 (3,1-9,7)
Gleason Score in entry biopsy, mean (range)	5,9 (5-6)
Gleason Score in entry biopsy, no. (%)	
2 + 3	1 (2,1)
3 + 3	47 (97,9)
D'Amico risk criteria, no. (%)	
Low	48 (100)
Pretreatment biopsy cores per patient, mean (range)	18 (10-42)
Positive core biopsies, mean. (range)	1,8 (1-4)
Percentage of positive core biopsies, % (range)	12,6 (4-34)
Cancer unilaterality, no. (%)	48 (100)
Preop IPSS score mean (range)	8,7 (1-22)
Preop ICS score, mean (range)	0,2 (0-2)
Preop IIEF score, mean (range)	15,6 (1-25)
Preop ability of sexual activities, no. (%)	37 (81)

BMI = Body Mass Index; MRI = Magnetic Resonance Imaging; PSA = Prostate-Specific Antigen; IPSS = International Prostate Symptom Score; IIEF-5 = International Index of Erectile Function

Table 1 – Demographics and preoperative data of 48 patients

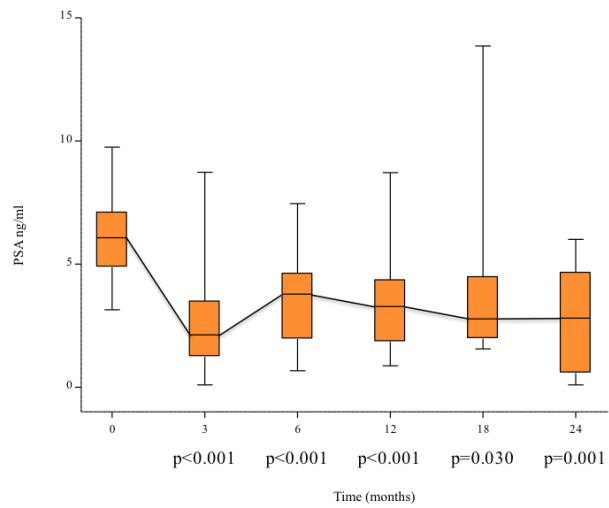


Figure 1 – PSA values in follow-up of focal cryoablation (box plot)