

Third generation total cryoablation as primary treatment for organ confined prostate cancer

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Introduction: Review of 3rd generation total cryoablation (Cryo) as primary treatment for organ confined prostate cancer (PCa).

Methods: From 2001-2005, 82 men, 37 (45%) low risk, 29 (35%) intermediate risk and 16 (19%) high risk (D'Amico) were treated. Follow up included PSA at 3 month intervals for 2 years, then at 6 month intervals and (Bx) at 6, 12 and 18 months. Biochemical failure was defined as PSA > 0.5 ng/ml. Men with positive Bxs were retreated.

Results: Median age 72.3 years; median pre-treatment PSA 6.18 ng/ml; 29 received hormones for downsizing. Median follow-up 51.5 months. Fifty-four (65.9%) had undetectable PSA and 3 negative Bxs. Sixty-two (75.6%) had undetectable PSA, 16 (19.5%) had biochemical failure at a median of 16.3 months. Of these, 12 (14.6%) had a positive Bx at a median of 8.5 months, 11 were retreated and 10 subsequently had negative Bxs. Patients had a median catheterization of 8 days, no fistulas were observed. Two developed incontinence requiring 2 pads a day. Fifty-seven (70%) had erectile dysfunction (ED), 23 others (28%) have erections using medication and 2 (2.4%) without medication.

Conclusion: Third-Generation cryoablation measured by serial biopsies and PSA has not been previously reported. PSA elevation did not consistently precede positive biopsy, most men with residual or recurrent disease at the time of diagnosis had a PSA < 1.0. Third generation total Cryo is an appropriate primary treatment for selected patients. Biopsy after initial primary treatment can result in early diagnosis of failure when it can be successfully retreated.