

Methods. From 1999 to 2010, 102 patients were implanted with rigid needles for HDR-BT, 54T1, 33T2 and 15T4. Twenty-one patients underwent surgery plus BT for close/positive margin, 78 exclusive BT, and 3 external radiation therapy (ERT) plus BT boost. Nine fractions of 5 Gy were given in five days in 67%, nine fractions of 4.5 Gy in 10% and other schemas in the rest, prescribed to a 90% isodose. Five cases presented cervical nodes, and 3 were detected in the elective dissection (8 cases N+). Elective neck treatment was performed in 23 cases, 8 with neck dissection, 4 with sentinel node, and 11 with ERT.

Results. Median follow-up was 45 months (2–143). There were five local failures and 10 nodal failures. The 5 and 10-year actuarial local control was 94.6%, nodal regional control 88.6%, disease-free-survival 84.6% and cause-specific survival 93.2%. In the univariate analysis T4 tumors had higher risk of local failure and T2 of regional relapse. All T1 tumors were controlled and two T2 were salvaged with surgery. T4 had lower risk of nodal failure than T2 cases because 66% received an elective neck treatment, vs 22.6%. In the multivariate analysis, skin involvement was the only significant factor for tumor progression.

Conclusions. HDR-BT yields excellent local control rates. Skin involvement increases risk of local and cervical recurrence. Elective neck treatment should be done in T2-4 tumors or with skin or commissure involvement. Cervical surgery or sentinel node technique should be the first election, and HDR-BT can be a good alternative to surgery for treating the local tumor with very good cosmetic and functional outcome.

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Permanent 125-Iodine implant for patients with intermediate risk prostate cancer

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Purpose. Low dose rate (LDR) prostate brachytherapy is an accepted, effective and safe therapy for localized prostate cancer in selected patients at intermediate risk. We analyzed oncologic outcome, side-effects and complications after I-125 brachytherapy based on 13 years of experience.

Methods and materials. Between March 2000 and December 2006, 219 consecutive patients were treated with clinically localized prostate cancer. No patients received external beam radiation. All patients underwent LDR prostate brachytherapy. Biochemical failure was defined according to the "Phoenix consensus". Patients were stratified as low, intermediate, or high risk based on D'Amico definition.

Results. The median follow up time for these 219 patients was 98 months; 9 had a clinical relapse and 32 had biochemical relapse. The 13-year actuarial biochemical control was 80% (SD ±3%). The multivariate Cox regression analyses identified, Gleason score as independent prognostic factors for biochemical failure. The actuarial biochemical control with Gleason score was 83% and 78% for patients with Gleason score of ≤6, and =7, respectively ($P=0.000$). The biochemical control was 77% and 82% (SD ±3%) for patients with PSA ≤10 and 10.1–20 respectively ($P=NS$). No patients reported incontinence after treatment. Acute urinary retention was seen in 8 (3.6%) patients. Logistic regression showed that the most significant factors which correlate with the probability of catheterisation are the pre-treatment prostate volume and hormonal therapy.

Conclusions. The excellent long-term results and low morbidity presented, as well as the many advantages of prostate brachytherapy over other treatments, demonstrate that brachytherapy is an effective treatment for clinical organ-confined prostate cancer in patients with intermediate risk tumors.

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Study of erectile function, IIEF's test in patients treated with brachytherapy exclusive with seeds of I-125 in early prostate cancer

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Introduction. In this project we analyze the evolution of sexual function in patients treated with brachytherapy technique with radioactive sources of I-125, using the IIEF test that analyzes the sexual sphere in the aspects related to ejaculation, libido and orgasm ability.

Patients and method. It has been analyzed 256 patients affected by early prostate cancer, diagnosed between June 2002 and June 2008, mean age 64.3 years (46–79), in stage T1b 1 p., T1c 178 p., T2a 66p, and T2b 11 p. The mean PSA value was been 6.64 ng/ml (2.1–12.6). The pathological report showed an adenocarcinoma Gleason 2 in 4 p., G1 4 in 22 p., G1 5 to 41 p., G1 6 in 181 p. and G1 7 in 7 patients. It was performed a measurement of the IIEF test before implantation, 1 month, every 3 months to 2 years and every 6 months to 5 years. The mean follow-up of patients was 40 months (2–72 months).

Results. The results showed normal erectile function after 172/256 p. (67.19%), previous DE in 84/256 p. (32.81%). After treatment retain E.F. at 133/172 p. (77.3%). Transitory DE in 27%. In the aspect in relation to ejaculation the value was 3.01 (pretreatment 3.8) (Question 9). To relate with the orgasm, was a value of 2.75 pretreatment vs 3, 45 (Question 10) and with respect to libido, was a value of 5.59 vs 6.25 pretreatment (Questions 11 and 12).