



A comparison of External Beam Radiation Therapy versus Radical Prostatectomy for Patients with Low Risk Prostate Carcinoma Diagnosed, Staged, and Treated at a Single Institution

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Introduction

Despite significant improvements in the treatment of localized prostate cancer, the optimal management of this malignancy remains undefined. Currently, both radiation therapy (RT) and radical prostatectomy (RP) are used as primary treatment for certain groups of patients. However, it has been a long debate which treatment is superior. Since the introduction of serum prostate-specific antigen (PSA) levels to both stage and monitor patients after treatment, serious concerns have been raised as to the validity of data derived prior to the PSA era. In this study, the researchers reviewed the outcome of patients with localized prostate carcinoma who had a serum PSA value no higher than 10ng/ml and a Gleason score no higher than 6.

Materials and Methods

- A total of 157 patients underwent RP with a pelvic lymph node dissection.
- The other 225 patients received external-beam RT with a median dose of 66.6 Gy to the prostate.
- Biochemical failure in the RP group was defined as a PSA level greater than or equal to 0.2 ng/mL at any time after the surgery.
- In the RT group, biochemical failure was defined as three consecutive increases above the post-RT nadir.

Results

With a median follow-up period of 5.5 years:

- There were no differences between RP and RT groups in the 7-year biochemical control (67% vs. 69%) and disease-specific survival (99% vs. 97%).
- The only factors associated with outcome were pretreatment PSA level and Gleason score.

Discussion

In this study, radical prostatectomy and radiation therapy were found to be equally effective in treating patients with low-risk prostate cancer. Due to the long natural history of prostate carcinoma and the potentially significant comorbidities in this patient population, longer follow-up is needed to analyze survival differences.

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