Biochemical outcome after radical prostatectomy or external beam radiation therapy for patients with clinically localized prostate carcinoma in the prostate specific antigen era.

Department of Radiation Oncology, Brigham and Women's Hospital and Dana Farber Cancer Institute, Boston, Massachusetts 02115, USA. adamico@lroc.harvard.edu

Abstract

BACKGROUND: To the authors' knowledge, consensus is lacking regarding the relative long-term efficacy of radical prostatectomy (RP) versus conventional-dose external beam radiation therapy (RT) in the treatment of patients with clinically localized prostate carcinoma.

METHODS: A retrospective cohort study of 2635 men treated with RP (n = 2254) or conventional-dose RT (n = 381) between 1988-2000 was performed. The primary endpoint was prostate specific antigen (PSA) survival stratified by treatment received and high-risk, intermediate-risk, or low-risk group based on the serum PSA level, biopsy Gleason score, 1992 American Joint Commission on Cancer clinical tumor category, and percent positive prostate biopsies.

RESULTS: Estimates of 8-year PSA survival (95% confidence interval [95% CI]) for low-risk patients (T1c,T2a, a PSA level < or = 10 ng/mL, and a Gleason score < or = 6) were 88% (95% CI, 85, 90) versus 78% (95% CI, 72, 83) for RP versus patients treated with RT, respectively. Eight-year estimates of PSA survival also favored RP for intermediate-risk patients (T2b or Gleason score 7 or a PSA level > 10 and < or = 20 ng/mL) with < 34% positive prostate biopsies, being 79% (95% CI, 73, 85) versus 65% (95% CI, 58, 72), respectively. Estimates of PSA survival in high-risk (T2c or PSA level > 20 ng/mL or Gleason score > or = 8) and intermediate-risk patients with at least 34% positive prostate biopsies initially favored RT, but were not significantly different after 8 years.

CONCLUSIONS: Intermediate-risk and low-risk patients with a low biopsy tumor volume who were treated with RP appeared to fare significantly better compared with patients who were treated using conventional-dose RT. Intermediate-risk and high-risk patients with a high biopsy tumor volume who were treated with RP or RT had long-term estimates of PSA survival that were not found to be significantly different.

Copyright 2002 American Cancer Society.DOI 10.1002/cncr.10657

Comment in

Radical prostatectomy or external beam radiotherapy: one step forward or two steps back? [Cancer. 2002]
Radical prostatectomy versus radiation therapy for clinically localized prostate carcinoma: the butcher and the baker selling their wares. [Cancer. 2002]

Biochemical outcome after radical prostatectomy or ex... [Cancer. 2002]... http://www.ncbi.nlm.nih.gov/pubmed/?term=12124827