Impact of body mass index on outcomes after conformal radiotherapy in patients with prostate cancer.

Several retrospective analyses have suggested that obese men with prostate cancer treated with external beam radiotherapy (EBRT) have outcomes inferior to those of normal-weight men. However, a recently presented analysis for the first time challenged this association between body mass index (BMI) and treatment failure. It is therefore important to provide further data on this issue. This was a retrospective analysis of 564 men treated with risk-adapted conformal EBRT at a single institution. Low-risk patients received EBRT alone, and the other patients received EBRT plus endocrine treatment. In addition, high-risk patients were treated to higher EBRT doses (74 Gy). A rectal balloon catheter for internal immobilization, which can be identified on portal images, was used in 261 patients (46%). Thus, localization did not rely on bony landmarks alone in these cases. The median BMI was 26, and 15% of patients had BMI $\geq$30. Neither univariate nor multivariate analyses detected any significant impact of BMI on biochemical relapse, prostate cancer-specific survival, or overall survival. The 5-year biochemical relapse rate was 21% and prostate cancerspecific survival 96%. The present analysis of a large cohort of consecutively treated patients suggests that efforts to reduce prostate movement and geographic miss might result in comparable outcomes in obese and
normal-weight patients.