Obesity is not associated with aggressive pathologic features or biochemical recurrence after radical prostatectomy.

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Abstract

OBJECTIVE: To determine whether obesity is associated with adverse pathologic characteristics, positive surgical margins, greater biochemical recurrence rates, and interval to death after primary treatment with radical prostatectomy (RP).

MATERIALS AND METHODS: A 12-year, retrospective, single-institution analysis of patients treated with RP was performed. Patients were categorized by their body mass index (BMI) as normal weight (n = 533), overweight (n = 1342), obese (n = 603), and morbidly obese (n = 22). The associations among the BMI, clinicopathologic characteristics, and biochemical recurrence rates were assessed.

RESULTS: After adjusting for multiple clinical preoperative characteristics, the BMI category was not associated with positive surgical margins (P = .66), organ-confined disease (P = .10), Gleason score (P = .22), extracapsular extension (P = .09), seminal vesicle invasion (P = .15), percentage of cancer in the prostate gland (P = .67), largest tumor nodule (P = .13), or lymph node metastasis (P = .39). Gleason score 4+3 (P <.001), Gleason score 9 and 10 (P <.001), and an increasing prostate-specific antigen level (P <.001) were associated with biochemical recurrence. At a mean overall follow-up of 55.6 months, 276 patients (11.0%) had developed biochemical recurrence (normal weight 11.3%, overweight 10.5%, obese 12.3%, and morbid obesity 4.5%). After multivariate adjustment for age, ethnicity, risk group, clinical stage, Gleason score, preoperative prostate-specific antigen level, and year of surgery, no association was found between the BMI and biochemical recurrence (P = .87).

CONCLUSION: In men undergoing RP for clinically localized prostate adenocarcinoma, obesity was not associated with adverse pathologic features, positive surgical margins, or biochemical recurrence. These data provide evidence that obese men undergoing RP are not more likely to have aggressive prostate cancer.

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