Statins Protect Against Acute RT-related Rectal Toxicity in Patients with Prostate Cancer: An Observational Prospective Study.


Abstract

AIM: To analyze risk factors for acute rectal toxicity during hypofractionated intensity-modulated radiotherapy (IMRT) for prostate cancer.

PATIENTS AND METHODS: A total of 195 patients received 74.25 Gy in 33 fractions to the prostate and, if involved, to the seminal vescicles (SV). When the risk of SV involvement was >15% according to the Roach's formula, they received 62 Gy in 33 fractions. Overall, 107/195 patients (54.87%) received hormonal therapy (luteinizing hormone-releasing hormone analogue, anti-androgen, or both). Common Terminology Criteria for Adverse Events version 3.0 was used to classify rectal toxicity.

RESULTS: Acute rectal toxicity occurred in 79 (40.51%) patients (grade 1 in 44). In univariate analysis, use of calcium channel blockers significantly reduced the acute rectal toxicity rate and 3-hydroxy-methylglutaryl CoA reductase inhibitors (statins) significantly reduced the rectal toxicity rate and grade. In multivariate analysis, only statin use was an independent protective factor.

CONCLUSION: In patients with prostate cancer treated with a moderate hypofractionated IMRT schedule, use of statins lowered the incidence and grade of acute rectal toxicity.

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