Abstract

AIMS AND BACKGROUND: To present survival and toxicity outcomes in patients with clinically localized, non-metastatic prostate cancer (PCa) treated with external beam radiotherapy (EBRT) combined with androgen deprivation therapy (ADT).

MATERIALS AND METHODS: Retrospective study of 849 PCa patients (pts) treated from 1996 to 2005. Until August 2000, all patients (281) were treated with conventional dose EBRT (<76 Gy); subsequent pts received ≥76 Gy (565 pts). Median age was 70 years (range, 39-82). Most pts were intermediate (353; 42.8%) or high-risk (344; 41.7%). Mean PSA was 10.1 ng/ml. Median dose to the prostate was 75 Gy. Complete ADT was administered to 525 pts (61.8%).

RESULTS: Median follow-up was 109.6 months (range, 68.3-193.4). Overall survival (OS) was 92.5% and 81.1% at 5 and 10 years; by risk group (low, intermediate, high), 5- and 10-year OS rates were 94.3% and 85.9%, 92.3% and 79.2%, and 91.9% and 80.2% (p = 0.728). Five- and 10-year BRFS was 94.1% and 80.6% (low risk), 86.4% and 70.9% (intermediate), and 85.2% and 71.4% (high) (p = 0.0666). Toxicity included rectitis: grade 1 (G1) (277 pts; 32.6%), G2 (108; 12.7%), and G3 (20; 2.6%) and urethritis: G1 (294; 34.6%); G2 (223; 26.2%), and G3 (11; 1.3%). By dose rate (<76 Gy vs. ≥76 Gy), 5 and 10-year BRFS rates were 83.1% and 68.3% vs. 88.4% and 74.8% (p = 0.038).

CONCLUSIONS: Our results are comparable to other published series in terms of disease control and toxicity. These findings confirm the need for dose escalation to achieve better biochemical control and the benefits of ADT in high-risk PCa patients.

KEYWORDS: High-dose; Prostate cancer; Radiation therapy; Survival rate; Toxicity