**Management and Outcomes of Clinical Stage II A/B Seminoma: Results From the National Cancer Data Base**

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**Purpose/Objective(s):** Testicular seminoma is the most common solid tumor seen in patients aged 15 to 35 years, and disease-specific survival approaches 100% in controlled studies, even for those with node-positive disease. We sought to describe modern practice patterns as well as survival outcomes and factors associated with receipt of postoperative therapy for patients presenting with initial clinical stage (CS) IIA/B disease.

**Materials/Methods:** Data on patients diagnosed with CS IIA/B testicular seminoma from 1998 to 2011 were extracted from the National Cancer Data Base. Demographic, clinical, treatment, and payer characteristics were evaluated using multivariate logistic regression to identify factors associated with receipt of chemotherapy or radiation therapy (RT) within 6 months of orchiectomy. Five-year Kaplan-Meier overall survival (OS) by CS and treatment was calculated. A Cox hazard regression predicting 5-year OS was performed.

**Results:** In total, 1995 patients with CS II A/B disease were included. Postoperative management included chemotherapy (40.4%) or RT (59.7%). In a multivariate logistic regression model, receipt of postorchiectomy RT was less likely than chemotherapy with CS IIB disease (OR = 0.38, P < .01), Medicaid/uninsured/unknown payer status (OR = 0.47-0.66, P < .02), low facility case volume (OR = 0.47, P < .01), or pT2/3/4 stage (OR = 0.41-0.76, P < .02). Treatment with RT was more likely at a community comprehensive cancer center (OR = 1.65, P < .01) or with primary tumor size ≥4 cm (OR = 1.39, P < .01). On Cox regression, receipt of chemotherapy was associated with worse 5-year overall survival (HR = 3.16, P < .01). Five-year OS for all CS IIA patients was 97%, while 5-year OS for CS IIB patients was 94% (log-rank P < .01). For CS IIA patients, 5-year OS was 99% for RT versus 93% for chemotherapy (log-rank P < .01). For CS IIB patients, 5-year OS was 96% for RT versus 91% for chemotherapy (log-rank P = .046).

**Conclusion:** Consistent with national guideline recommendations, our analysis supports a preferred status for RT in CS IIA disease. In addition, these data suggest a potential benefit for RT in CS IIB disease. Clinical stage, disease bulk, pT stage, insurance, facility type, and case volume were associated with choice of postoperative therapy. Longer follow-up and validation of these results is needed, including accounting for late effects of treatment.