TESTICULAR CANCER

Balancing quantity and quality of life

The long-term survival of men with clinical stage I nonseminomatous germ cell testicular cancer (NSGCT) exceeds 97% when their disease is managed using one of three widely accepted approaches. In the absence of starkly disparate outcomes data, the choice between surveillance, primary chemotherapy and retroperitoneal lymph node dissection—all of which are well tolerated—is often heavily influenced by the preference of the treating physician. A new decision analysis tool that emphasizes the importance of patient-rated quality-of-life parameters has been developed.

Hypothetical NSGCT sufferers (health workers from the Cleveland Clinic) were asked to estimate the impact on their life of seven possible post-treatment conditions; untreated malignancy, secondary malignant neoplasm, cardiovascular disease, small bowel obstruction, infertility, peripheral neuropathy, and ototoxicity. Secondary malignancy emerged as the health state most likely to negatively affect quality of life. Infertility due to ejaculatory dysfunction was rated as the least problematic. This information, together with data on the likelihood of survival and treatment-induced morbidity, was plugged into a Markov model.

Results for quality-adjusted survival did not differ between the three management

options (average 43 years) when surveillance was assumed to be associated with a 28% risk of relapse. When relapse-rate input data were varied between 1% and 99%, the model identified surveillance as the preferred strategy amongst all but the highest-risk patients.

This result gives credence to current guidelines. In both the USA and Europe, surveillance is recommended for men with low-risk clinical stage I NSGCT. The advice on most-appropriate use of retroperitoneal lymph node dissection and chemotherapy varies, however. Using this new decision-analytic framework to individualize management should optimize patient satisfaction as well as outcomes.

Chronic vascular problems are a widely recognized long-term hazard of chemotherapy for testicular cancer. The risk of major cardiovascular events during cisplatin-based therapy is less-well studied. The German Testicular Cancer Study Group sought to breach this knowledge gap by distributing a survey to 355 institutions. Data on more than 8,000 patients were collected.

The researchers conclude that there is a “small but definite risk” (0.3%) of early myocardial infarction and stroke among men receiving chemotherapy for testicular malignancy. Their nationwide survey

identified 25 patients (median age 42 years) who had experienced such an event either during or within 6 weeks of treatment. The authors recommend that physicians “consider prophylactic anticoagulant medication ... in high-risk patients”.

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Original articles Nguyen, C. T. *et al.* Defining the optimal treatment for clinical stage I nonseminomatous germ cell testicular cancer using decision analysis. *J. Clin. Oncol.* **28**, 119–125 (2010) | Dieckmann, K.-P. *et al.* Myocardial infarction and other major vascular events during chemotherapy for testicular cancer. *Ann. Oncol.* doi:10.1093/annonc/mdp597