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See Article page 856.

Commentary: Good news travels fast

Kenneth A. Kesler, MD

Before the results of a phase II trial demonstrating the effectiveness of cisplatin-based chemotherapy for disseminated testicular cancer were published in 1976, the word was out and survival rates began to exponentially increase for a malignancy, which at the time was rarely cured.^{1,2} The treatment algorithm of combination chemotherapy followed by aggressive surgery to remove residual disease for metastatic nonseminomatous germ cell tumors is now considered one of most successful models for multimodality cancer therapy, which our thoracic oncology community emulates for other locally advanced neoplasms with improved but currently lesser success.

Although cure rates for testicular cancer are very high, there still remain frontiers for improvement, such as the quandary of chemorefractory nonseminomatous cancer and malignant (somatic) transformation (fortunately representing only a minority of cases) and the variety of postchemotherapy pathology, which has implications for the indications to remove residual disease. For 2 examples, avoidance of pulmonary metastasectomy would seem prudent where there is a high likelihood of complete tumor necrosis. In contrast, pulmonary metastasectomy for numerous areas of chemorefractory disease may be futile.

CENTRAL MESSAGE

Metastatic germ cell tumors have high cure rates with cisplatin chemotherapy followed by surgery. Although teratoma is the most common pathology, other benign and malignant elements can be present.

Donahoe and coworkers³ have taken a deep dive into their institutional experience, examining the pathology and survival outcomes after surgery for nonseminomatous testicular cancer metastatic to the lung and mediastinum. The authors' messages are important. First, the ability to predict postchemotherapy pathology is overall good, taking under consideration serum tumor marker levels, computed tomography appearance, and orchiectomy pathology, but the predictive accuracy as well as the concordance between lung, mediastinum, and retroperitoneal pathology remains imperfect. Second, while "benign" teratoma is the most common pathology in residual abnormalities following chemotherapy, there can be a variety of other benign and malignant elements. In this regard, this manuscript also serves to educate on the spectrum of pathology that can be encountered. Finally, careful, long-term surveillance after surgery, with removal of recurrent disease when appropriate, is necessary to maintain optimal outcomes.

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The Toronto group has established a center of excellence with expert medical oncologists, urologic, and thoracic surgeons for a multidisciplinary approach to nonseminomatous germ cell cancers. This multidisciplinary approach optimizes outcomes for these otherwise-young and healthy patients and is particularly important for the challenging patients with chemorefractory disease. Donahoe and colleagues are to be congratulated on an excellent study that helps define the management of disseminated testicular cancer.

See Article page 856.

Commentary: Predicting intrathoracic pathologic concordance in patients with metastatic nonseminomatous germ cell tumor is clearly unclear

Josh Boys, MD, and Mark Onaitis, MD

Up to 30% of men with nonseminomatous germ cell tumor (NSGCT) will have intrathoracic tumors after initial chemotherapy treatment.^{1,2} Current treatment guidelines recommend resection of residual tumors larger than 1 cm with normal serum tumor markers (STMs) to prevent future transformation and control ongoing malignancy.^{3,4} However, intrathoracic NSGCT is frequently multifocal (mediastinal and pulmonary), and whether pathology from one site of resection can reliably predict concordance at another site is unknown. If concordance between intrathoracic metastatic sites were reliable, then patients with necrosis on pathology could be spared additional surgical resection.

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Josh Boys, MD, and Mark Onaitis, MD

CENTRAL MESSAGE

Pathologic concordance of nonseminomatous germ cell tumors in the chest is poor; thus, aggressive surgical management of multiple sites is still recommended after multidisciplinary evaluation.

In their study reported in this issue of the *Journal*, Donahoe and colleagues¹ hypothesize that great variability exists in the histology of these lesions, making it difficult to determine which patients may avoid surgery. They performed a single-institution retrospective review of 89 male patients with intrathoracic NSGCT metastases mostly from testis (96%). Eighty-six percent received cisplatin-etoposide and bleomycin before the operation. The median age was 29 years. The patients were divided into 2 groups. Group 1 patients (21%) had malignant disease (viable germ cell malignancy or somatic transformation), and group 2 (79%) had benign disease (immature and mature teratoma, necrosis, or other benign pathology) at the time of initial chest operation. There was a significant difference in the