

## Recent Developments in Evaluating and Managing Thyroid Cancer

This issue of *Cancer Control* focuses on thyroid cancer. The last time this journal devoted an issue to thyroid cancer was over 5 years ago. During that interval, significant advances have been made in the detection and management of thyroid cancer, and guidelines for the treatment of patients with thyroid nodules have been revised and updated.

Thyroid cancer presents unique problems not seen in other cancers. Thyroid cancer comprises a relatively small portion of newly detected cancers. In 2006 in the United States, more than 30,000 new cases of thyroid cancers are expected out of 1,400,000 new cases of cancers at all sites.<sup>1</sup> Although cancer of the thyroid is relatively rare, thyroid nodules, which are the primary indicator of developing thyroid cancer, are quite common. Palpable thyroid nodules occur in approximately 5% of women and 1% of men. Using ultrasound, thyroid nodules are identified in 19% to 67% of individuals. The issue then becomes determining the most efficient and cost-effective means to discover which thyroid nodules may represent cancers at a stage suitable for effective treatment. Because of the importance of appropriate initial evaluation and management of thyroid nodules and thyroid cancers, we have included in this issue an article by Dr. Christopher Lansford and Dr. Theodoros Teknos on the evaluation of incidental thyroid nodules. With more imaging studies being performed in the head and neck area for diagnosis and follow-up of disease processes, primary care physicians, surgeons, and oncologists are faced with decision making related to these incidentally identified nodules.

Well-differentiated thyroid cancers represent over 90% of thyroid carcinomas. Dr. Cristian Slough and Dr. Gregory Randolph present the decision-making process involved in the evaluation and management of these tumors. These articles can be read in association with the management guidelines recently published by the American Thyroid Association for patients with thyroid nodules and differentiated thyroid cancer.<sup>2</sup> This paper is included in our list of recommended readings presented in this issue.

We also present a series of articles on topics not covered in our previous issue on thyroid cancer. These articles cover recent developments in the management of poorly differentiated and anaplastic thyroid cancers. First, Dr. Carl Malchoff and Dr. Diana Malchoff present new information on epidemiologic and genetic studies indicating that nonmedullary thyroid carcinomas may follow a familial inheritance. As sophisticated genetic testing evolves,

clues will become available to better guide treatment and genetic counseling in families who have a potential to develop thyroid cancer. The second article focuses on the optimal management of thyroid carcinomas in the future, which will need to be based on an understanding of the process of dedifferentiation and its relationship to progression and prognosis. Dr. Kopal Patel and Dr. Bhuvanesh Singh present a review of the genetic tools currently available in classifying and predicting the progression of thyroid carcinomas — from well-differentiated to the poorly differentiated and anaplastic tumors that exhibit aggressive local behavior. Third, Dr. Kopal Patel and Dr. Ashok Shaha discuss the small minority of poorly differentiated and anaplastic thyroid carcinomas that require innovative management strategies in order to achieve disease control. While these articles cover only a small fraction of the interesting topics and new developments in thyroid cancer, they provide valuable information for oncologists, surgeons, and primary practitioners.

Several advances over the past 5 years have prolonged survival of patients with thyroid cancer. Perhaps in 5 years from now, we will again focus on thyroid cancer and will be able to report many more promising developments in treating this disease.

In addition to the articles focusing on thyroid cancer, we have included a paper that takes a look at targeted therapies for non-small cell lung cancer. Patients often present with inoperable advanced-stage disease and are difficult to treat; the median survival with combination chemotherapy is only 8 to 10 months. Drs. Petra Martin, Catherine Kelly, and Desmond Carney review the use of two epidermal growth factor receptor inhibitors, gefitinib and erlotinib, for non-small cell lung cancer and conclude that although to date they have not provided a significant survival advantage when combined with chemotherapy in the first-line setting, such targeted therapies remain promising.

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### References

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2. Cooper DS, Doherty GM, Haugen BR, et al. Management guidelines for patients with thyroid nodules and differentiated thyroid cancer. *Thyroid.* 2006;16:4-33.