Editorial

Progress in Oncology

The brand-new incoming medical students at the University of South Florida are now greeted with an exciting new introductory course. Part of this exercise, intended to stimulate life-long learning habits, involves first listening to a few lectures given by faculty in a traditional fashion that summarize the "state-of-the-art" of a common clinical problem 20 years ago. Following the lectures, the students work in small groups to define the changes that have occurred related to that problem and then present today's status of knowledge and management.

I was assigned to present the topic of breast cancer to them — a task made relatively easy for me because I had written a book chapter on breast cancer around that time. My lecture, plus the superb subsequent student presentations, caused me to reflect on the pace and type of changes that are taking place in oncology. New knowledge in tumor biology is certainly improving our understanding and communication about the disease, but practical application of the new knowledge tends to produce just incremental steps in population-based or individual patient outcomes. Taken together, however, the benefits — in cancer detection and prevention, surgery, radiation and systemic therapy — become very tangible and, in breast cancer at least, are associated with decreasing mortality rates from the disease. This issue of *Cancer Control* addresses several areas in which advances in oncologic knowledge have translated into better care. Also included is a paper on an issue that demands improved communication between patients and their caregivers.

Until I read the paper on sentinel nodes by Drs Zervos and Burak in this issue, I had not realized that the initial concept of sentinel node identification and evaluation was initially described in patients with cancer of the penis. Dr Donald Morton must take the principal credit for developing the technique for patients with melanoma, and surgeons at our institution have been leaders in teaching and utilizing the technique in both breast cancer and melanoma. Thousands of patients are now able to avoid the morbid consequences of a complete nodal basin dissection — and good clinical trials are currently underway to answer the questions that have emerged as a result of more directed and sophisticated evaluation of the excised sentinel nodes. Image-guided surgery is clearly here to stay — and to be further improved and refined.

Major changes and improvements have taken place in the support of patients being treated for cancer. One important benefit in patient care has been the use of hematopoietic cytokines to minimize the risk of complications from neutropenia induced by chemotherapy. The article by Dr Chrischilles and her colleagues provides confirmation derived from community-based oncology programs that different guidelines for cytokine use should be utilized for elderly patients in comparison to their younger counterparts. After chemotherapy, the elderly are at greater risk for early neutropenic episodes, so "prophylactic" or "early" cytokine use seems appropriate. On the horizon are newer versions of hematopoietic cytokines that will require just a single injection rather than a course of injections and which will avoid the common "overshoot" of neutrophil counts that frequently occurs at the end of a treatment course.

How important are relatively esoteric topics to us? Most of us in medical oncology do not deal with the diagnosis of hypopituitarism in childhood, but we may be asked to intervene in patients with pituitary tumors, including those associated with acromegaly. Among papers prepared for a recent conference on pituitary tumors, Dr Geffner provides an elegant description of the diagnosis and management of childhood hypopituitarism. Dr Vrionis and colleagues provide us with another example of the rapid progress being made in modern neuro-oncosurgery. The truly sneaky way to access the contents of the pituitary fossa through the

nose with minimal complications and a postoperative stay as short as a day is astonishing progress to me. In the last of this group of three articles on pituitary diseases, Dr Friend describes the initial studies of pegvisomant, a recombinant growth-hormone antagonist. The early trial results in patients with acromegaly who are resistant to dopamine and somatostatin analogs are encouraging, although circulating growth hormone levels are not reduced and the pituitary gland sometimes increases in size with treatment.

The final article highlights the need for better communication with our patients. A large proportion of our cancer patients are taking complementary treatments that we have not prescribed. Dr Kumar and her colleagues demonstrate the prevalence of this practice in a selected group of patients undergoing active antitumor treatments at a tertiary cancer center. They also provide a summary of the most common interactions or side effects of many of the additives that our patient may be taking. Some of these treatments are highly potent biologically. For example, an acquaintance of mine adjusted the dose of PC-SPES he took for advanced prostate cancer based on serial PSA readings. This agent is not currently available due to concerns about thromboembolic problems. Fortunately, we are beginning to learn more about the safety of some of these additives that are taken with impunity by many patients who believe them to be "natural" in origin and thus both safe and effective! The story about supplementary β-carotene enhancing death rates in men at high risk for lung cancer is now quite well known by physicians, but I was surprised to learn at the recent AACR meetings in San Francisco that ingestion of St John's wort causes significant lowering of circulating levels of CPT-11 (Irinotecan).[1] We cannot and should not dissuade our patients from taking complementary treatments, but we should be aware of what additives our patients are taking so we can provide our best support and advice about them.

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Reference

1. Mathijssen RH. Modulation of irinotecan (CPT-11) metabolism by St. John's wort in cancer patients. *Proc Annu Meet Am Assoc Cancer Res.* 2002;2443. Abstract.