

Symptom control, treatment-induced nausea prophylaxis, and palliative radiation therapy

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In a topic that has been underrepresented in the journal to date, the first article in the current issue of *Annals of Palliative Medicine* focuses on perinatal palliative care. Marc-Aurele and colleagues report on referral patterns and outcomes of a tertiary care center's fetal clinic and show that the majority of women with potentially life-limiting fetal diagnoses are not referred to perinatal palliative care. This is not surprising given there are only a little over 200 perinatal palliative care programs in the United States (1). Yet, these programs can provide support as families make decisions and deal with the devastation of knowing that an intrauterine fetal demise or neonatal death may occur (2).

The next series of articles shifts focus to palliative radiotherapy. First, Skamene and colleagues from Dana-Farber Cancer Institute report on how having a dedicated palliative radiation oncology service impacts the use of single-fraction and hypofractionated radiation therapy for bone metastases. Radiation therapy is an effective means to palliate both complicated and uncomplicated bone metastases (3-6). While palliative radiotherapy has historically been delivered most often using conventional fractionation in the United States, there is increasing awareness that single-fraction treatment can be equally effective while optimizing patient convenience and treatment-related costs (7,8). Following the initiation of the Supportive and Palliative Radiation Oncology service at the Dana-Farber/Brigham and Women's Cancer Center Department of Radiation Oncology in 2011, there was a nearly four-fold increase in use of single-fraction radiation therapy. Single-fraction and short-course radiotherapy was recently endorsed as the preferred regimens for uncomplicated bone metastases in the updated American

Society of Radiation Oncology consensus guidelines (9), and the findings by Skamene *et al.* underscore the importance of multidisciplinary palliative care teams and dedicated palliative radiation oncology services.

Ganesh and colleagues from the Odette Cancer Center at University of Toronto report on symptoms clusters using the EORTC QLQ-C15-PAL among patients receiving palliative radiotherapy. Patients with advanced cancer often experience symptoms from their cancer or from their cancer treatment (10,11). When they experience multiple symptoms concurrently, termed a symptom cluster, palliative and supportive care is even more critical to optimize patient quality of life. Using a validated quality of life tool in a cohort of over 100 patients with advanced cancers, these investigators found that respiratory and physical function symptoms often clustered together, as do pain, nausea and difficulty with sleep.

Mercadante *et al.* next report on a retrospective cohort of patients in a palliative-supportive care unit with uncontrolled pain despite opioid dose escalation of at least two agents or combinations. Of the 44 patients treated with a burst of ketamine and midazolam, 34 achieved a pain improvement, and the mean pain intensity of the group decreased from 7.8 to 2.8. Impressively, 33 of these 34 patients reported the outcome to be 'optimal' or 'good,' with only a single patient reporting it to be 'mild'. While ketamine is known to have analgesic properties and proinflammatory effects (12), a recent multi-center randomized trial with different inclusion criteria than were used by Mercadante *et al.* failed to demonstrate a clinical benefit for ketamine (13). The impressive findings by Mercadante and colleagues, however, justify further study

of this pain management approach.

Several studies and reviews on the management of treatment-induced nausea, both from chemotherapy and from radiation therapy, have recently been reported in *Annals of Palliative Medicine* (14-17). In this issue, Ganesh and colleagues report on a prospective clinical trial using palonosetron—a second generation 5-hydroxytryptamine 3 receptor antagonist—in the prophylaxis of radiation-induced nausea and vomiting. Among 75 evaluable patients, complete control of emesis was achieved in over 93% of patients both in the acute and delayed phases, suggesting that palonosetron may provide more optimal control compared with rates previously reported for first generation serotonin receptor antagonists. Also in this issue, Chow *et al.* perform a systematic review and meta-analysis on the efficacy of a neurokinin-1 receptor antagonist, palonosetron and dexamethasone compared to other regimens for the prophylaxis of chemotherapy-induced nausea and emesis. The combination of these agents was found to be superior to individual or other agents in the majority of assessed endpoints, raising question as to if future chemotherapy-induced nausea and vomiting prophylaxis guidelines should include a neurokinin-1 receptor antagonist as a first-line treatment.

The Veterans Health Administration (VHA) Palliative Radiotherapy Task Force then reported on the management of metastatic spinal cord compression. In surveys to VHA radiation oncologists, most (87%) deliver 30 Gy in 10 fractions for cord compression palliation, with all respondents also recommending steroid therapy. Of note, reirradiation is given by two-thirds of respondents (66.1%), with 30.7% delivering reirradiation with stereotactic body radiation therapy (SBRT), an advanced radiotherapy modality that is increasingly being used in the palliative care setting (18).

The April 2018 issue of *Annals of Palliative Medicine* features two original article that are part of the Palliative Radiotherapy column. In the first article, Ampil and colleagues identified important prognostic factors for patients with lung cancer. They found that among a large cohort of patients who were treated with radiation therapy for locally advanced non-small cell lung cancer, those patients presenting with superior vena cava syndrome and who had inadequate or no health insurance had a significantly shortened overall survival relative to the rest of their cohort. In the second article, Shi *et al.* analyzed patterns of symptom control and palliative care-focused original research articles in two of the most widely

circulated radiation oncology journals, *International Journal of Radiation Oncology *Biology* Physics* and *Radiotherapy and Oncology*. With fewer than 5% of original research articles in each journal focusing on palliative care, the authors identified that palliative and supportive care articles are poorly represented in these premier radiation oncology journals despite palliative radiotherapy being a key part of radiation oncology practice.

Wang and colleagues then write a review on sexual healthcare for cancer patients and summarize studies exploring the prevalence and importance of incorporating sexual health in the symptom screening and assessments of palliative patients, identify current interventions implemented to address sexual health issues, and discuss barriers that prevent sexual health discussions between health care providers and patients. Johnstone and Rich next author a review on bleeding in cancer patients, a common problem in that patient population related to local tumor invasion, tumor angiogenesis, systemic effects of the cancer, and/or anti-cancer treatments. They detail treatment options, including systemic agents, transfusions, noninvasive local therapies, and invasive local treatments.

This issue of *Annals of Palliative Medicine* is concluded with two Viewpoint articles and one Perspective article. Effiong and Kumari write on integrating palliative care and emergency medicine for optimal management of sickle cell pain in the wake of the United States opioid epidemic. Johnson writes on the gripping movie, *Hold Me*, the story of a woman whose job it is to hold and console patients who are being voluntarily euthanized. Finally, Niglas and colleagues debate on if dexamethasone be standard in the prophylaxis of pain flare after palliative radiotherapy for bone metastases.

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Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

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