

Palliative and stereotactic radiation therapy, patient-centered care, genetic biomarkers, and pain

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In keeping with prior recent practices of the journal (1), *Annals of Palliative Medicine* remains committed to expedited publication times following manuscript acceptances, thus allow timely research to be dissemination as quickly as possible to readers. Therefore, we are featuring another extra issue of *Annals of Palliative Medicine* in December 2017 that is an extensive issue with 26 total articles, including 14 original research manuscripts, our most published in a single issue to date.

The December issue starts out with four thoughtful editorials. In the first, Malek *et al.* comment on how palliative radiotherapy can achieve a rapid pain response in patients with painful uncomplicated bone metastases. This editorial is quite timely based on the recently published secondary analysis of the NCIC Clinical Trials Group Symptom Control Trial SC.23, a randomized trial assessing dexamethasone for prophylaxis of pain flare following radiotherapy (2) showing that two-fifths of patients experienced pain reduction and better quality of life by day 10 after radiotherapy (3). Next, Aparna Sajja writes a politically charged editorial on the value in care. The editorial calls for physicians to be conscience of the costs and value of their care, and for the adoption of explicit limits to consumption of resources and distributive justice by providers.

Tjen-A-Looi and Fu next write an editorial on the sustained effects of acupuncture in the treatment of chronic constipation. This is also timely given the relatively recent publication of the largest acupuncture clinical trial published

on constipation to date, a multi-center randomized trial demonstrating that standardized manual acupuncture and electroacupuncture significantly increased complete spontaneous bowel movements (4). The authors put this trial into context for *Annals of Palliative Medicine* readers and address the mechanisms of benefit for acupuncture.

The final editorial returns to a politically charged topic—ethical challenges in extra corporeal membrane oxygenation (ECMO) use. With the rapid increase in the use of ECMO in critical care units in the 2010's (5), ECMO is being used as a means to prolong or even save the lives of patients with severe cardiac and pulmonary dysfunction refractory to conventional management. However, with data on its benefits still emerging, numerous ethical questions surround ECMO have emerged. Makdisi and Makdisi discuss these ethical challenges and circumstances where the technology has created disagreements among surrogates and between health care providers and surrogates.

This issue of *Annals of Palliative Medicine* next features numerous high-quality original research manuscripts. The first original article reports on a survival analysis of malignant epidural spinal cord compression after palliative radiotherapy using an internationally validated pre-operative scoring system (6) and assesses the impact of systemic therapy for these patients. Next, Eastman and colleagues evaluate palliative radiotherapy utilization in an Australian palliative care unit. As the appropriateness of and indications for radiotherapy in palliative care inpatients remain undefined, this analysis adds to the literature on this

important topic and raises several considerations about the appropriate stratification of such inpatients for receiving palliative radiation therapy.

While historically most commonly employed as a potentially curative advanced radiation modality to treat early stage malignancies (7,8), this journal has chronicled how stereotactic body radiation therapy (SBRT) is increasingly being used in the palliative care setting (9-11). SBRT is being used both for primary and secondary renal cell carcinoma (12). Prins and colleagues report on a novel analysis demonstrating that MRI-based target delineation is superior to CT-based delineation for SBRT of bone metastases from renal cell carcinoma. Their findings suggest that CT-based planning may underestimate the true extent of disease and thus lead to underdosing of gross tumor treated with SBRT. Just as stereotactic technology is increasingly being used in the body, stereotactic radiosurgery (SRS) has now fully become entrenched in the palliative care world for palliation of brain metastases (13,14). Zeng *et al.* conducted an interesting analysis assessing patient preference for SRS plus or minus whole brain radiotherapy for brain metastasis treatment. They found that a patient-centered approach to decision making in brain metastases is feasible, and that most patients would prefer SRS alone over SRS plus whole brain radiotherapy.

Moroney *et al.* next assess hospitalizations in elderly glioblastoma patients, demonstrating high rates of emergency department visits and acute care admissions, suggesting that strategies such as earlier palliative care discussions and improved palliative home care services could be of benefit in reducing admissions and ultimately overall healthcare costs.

The next two original research manuscripts focus on patients with advanced breast cancer. In the first, Ganesh *et al.* assess symptom clusters using the brief pain inventory (BPI). The BPI is a validated measure of pain commonly used among cancer patient populations (15). Marta and colleagues then perform an evaluation on the extent in which health-related quality of life parameters have been used in phase III clinical trials involved breast cancer patients treated with radiation therapy.

The next pair of articles assess gender differences and pain in patients with cancer. Ahmed *et al.* perform a meta-analysis showing that baseline perceived pain intensity in

cancer patients does not appreciably differ by gender. Then, in another secondary analysis of the previously discussed NCIC Clinical Trials Group Symptom Control Trial SC. 23 (2), Chow and colleagues confirm the findings by Ahmed *et al.* and do not identify differences in symptom presentation, patient reported outcomes, or response to radiation therapy according to gender among cancer patients with bone metastases undergoing palliative radiotherapy.

Sanderson and colleagues then report on their findings from a pre- and post-test quality improvement project conducted to determine the feasibility and acceptability for patients, family and the palliative care team of patient-centered family meetings. The investigators concluded that a patient-centered approach to family meetings with active patient involvement could provide additional opportunities for patients and families to express concerns and prepare for death. Similarly, Elorreaga *et al.* performed a review of advanced directives and determined that patient-centered care most optimally includes advanced care planning, and that social workers are a valuable component of the palliative care team to incorporate education about advanced directives.

The next two companion articles focus on medical cannabis in palliative medicine. In the first article, O'Hearn *et al.* perform a review of preclinical studies on the endocannabinoid pathway as a treatment for peripheral neuropathy, and they discuss the biological mechanisms in which cannabis compounds may effectively manage chemotherapy-induced neuropathic pain. In the second article, Blake and colleagues perform a review of medical cannabis in cancer pain management. This is an important topic given the increasing number of governments legalizing cannabis products for medical purposes and the increasing recognition that cancer pain remains suboptimally managed (16,17). Although some studies that these investigators reviewed support the notion that medical cannabis can improve chronic or neuropathic pain in advanced cancer patients, additional larger studies are needed to more adequately evaluate this potential benefit.

Three companion articles on genetic biomarkers relating to pain and radiotherapy delivery are featured in this issue. First, Furfari and colleagues assess genetic biomarkers associated with response to palliative radiotherapy in

patients with painful bone metastases. This group of investigators then evaluate genetic biomarkers associated with pain flare and dexamethasone response following palliative radiotherapy in patients with painful bone metastases. They conclude their analysis with an evaluation of genetic biomarkers associated with changes in quality of life and pain following palliative radiotherapy in patients with bone metastases.

The December 2017 issue of *Annals of Palliative Medicine* is concluded with two case reports, two viewpoint articles, and a meeting report. David MacKintosh reports on two cases of probable olanzapine-induced delirium, whereas Tao and colleagues report on a patient with symptomatic heterotopic ossification who did not undergo surgical excision and who achieved a good pain response and improvements in quality of life with radiation therapy alone. Next, Chloe Hui-Ling Choy discusses suicide in the palliative care setting and calls for steps to prevent the hastening of death in terminally ill patients who are depressed and contemplating suicide. Robert Johnson then discusses a *New York Times* article on assisted suicide and relooks at the meaning of “do no harm”. This issue of *Annals of Palliative Medicine* is concluded by a report from the Fourth Annual Meeting of the Society for Palliative Radiation Oncology (SPRO) by Wei and colleagues. *Annals of Palliative Medicine* is the official journal of the SPRO, an international society that strives for palliative radiotherapy that is effective, efficient, safe, cost effective and collaborative, and that promotes and advances the practice of evidence-based palliative radiation therapy through research, education, and advocacy (18,19).

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Footnote

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

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