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Advances in understanding and improving gastrointestinal symptoms during supportive and palliative care: A decade of progress

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This year marks the 10th anniversary for our journal, Current Opinion in Supportive and Palliative Care. For this occasion, I am taking the opportunity to reflect upon how the field has progressed over this time focusing particular attention on managing gastrointestinal symptoms. This decade has provided major advances in cancer treatment highlighted by wider application of tyrosine kinase inhibitors and the introduction of new classes of therapies that harness the power of the body's own immune system to attack cancer. Additionally, genomics and novel biomarkers are now routinely used in the clinic to select which patients are most likely to respond to specific therapeutic regimens. Despite these advances, off target gastrointestinal toxicities remain a pervasive challenge. For these reasons, attention to advances in symptomatic supportive and palliative care remain a strategic priority for improving the quality of life for patients affected by serious and life-threatening diseases such as cancer.

Over the last 10 years, the Journal has addressed this challenge, typically publishing 5 to 7 outstanding reviews on these topics per year. Notably, in its first year there was a heavy focus on mucositis related to cytotoxic therapies including radiation and alkaloid-based chemotherapies.(1-5) Subsequent issues focused on understanding the management of both the short and longer term gastrointestinal side effects and consequences of chemo and radiation therapy.(6-13) Important insight has also been provided on weight loss as well as nutrition support options for patients in need of supportive and palliative care.(14) (15, 16) Investigators and clinicians have also shared their valuable knowledge on novel approaches to understanding therapy related intestinal toxicities including symptom clustering(17), physiologic approaches(18), pathophysiologic mechanisms(19-22), new measurement tools/approaches(23-27) and understanding of therapy specific toxicities.(28, 29)

As the field of cancer therapies has progressed our journal has provided timely reviews and insights to their toxicities. Keefe, Bossi, Bowen and colleagues shed light on the challenges and toxicities associated with targeted therapies including tyrosine kinase inhibitors. (30-33) This year, Van Seville and coinvestigators detail the specific gastrointestinal

toxicities of first and second generation small molecule tyrosine kinase inhibitors with a focus on non-small cell lung cancer.(34)

Gut microbiota and natural therapies have also been a topic of interest recently. Oral health, involvement of the upper gastrointestinal tract and palliative surgical approaches have also been covered in important detail.(35-41) Reflecting a surge of patient and provider interest (42, 43), we have seen interest in covering novel therapies to reduce toxicity to normal gastrointestinal tissues including probiotics and microbial derived products.(44, 45) The exciting area of host-microbe cross talk in relation to cancer therapy was covered in excellent detail last year by Vanhoecke and Stringer.(46) Last year, Marx and colleagues also provided a delightful review examining the data and mechanisms of ginger as a natural approach to limit symptoms of nausea and vomiting.(47) Novel Biomarkers of normal tissue toxicity(48, 49), infection related mortality(50) and gastrointestinal pathology after stem cell transplant have also been addressed.

In the current issue we have another outstanding collection of review articles seasoned with authors' opinions. Bosnjak and colleagues provide a timely and thorough review examining a repurposing of the antipsychotic drug olanzapine as an important strategy for treating both cancer and chemotherapy induced nausea and vomiting (pp. 180-188). Elke Cairo elegantly illustrates the importance of toll-like receptors (TLR) in the pathogenesis of chemotherapy-induced intestinal toxicity paying particular attention to new data related to TLR-2 (157-164). Eyob et al. (pp165-179) grace our format by providing original data from a large cohort of patients examining the impact of chemotherapy on cancer related fatigue and identify differences in cytokines changes based on the type of therapy used. Finally, van Eeden and Rapaport (pp.189-194) share with us an up to date review on the management of anemia in solid and hematologic malignancy highlighting the risks and benefits of using erythropoiesis-stimulating agents and transfusions.

Beyond the remarkable insight gained from each issue, an important aspect of the Journal has been to include insight and opinions from authors around the world. You can see that this is achieved again this year with contributors from Australia, Germany, Serbia, Montenegro, South Africa and Singapore. The worldly perspective brought forth by my esteemed colleagues is infrequently represented to this degree in other journals and highlights the important role for this journal now and for its longevity. So here is a virtual toast to the achievements of this decade past and to what will surely be a bright decade ahead of advances in supportive and palliative care directed at improving the quality of life for all those in need.

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