Advances in Radiation Oncology (2020) 5, 595-596

advances
in radiation oncology

www.advancesradonc.org

Letter to the Editor

In Regard to Yerramilli et al's "Palliative Radiotherapy for Oncologic Emergencies in the Setting of COVID-19: Approaches to Balancing Risks and Benefits"

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To the Editor:

This timely paper provides guidance on short course palliative radiation therapy (RT) for common indications (eg, brain metastases, cord compression, tumor bleeding, airway obstruction, and bone metastases) during the coronavirus disease 2019 (COVID-19) pandemic.[1] The increased risk of patients with cancer contracting COVID-19 infection and their higher risk of morbidity and mortality are strong motivators for using the shortest, most effective palliative RT regimens.[1,2]

We recommend 8 Gy single fraction RT as the first choice to palliate tumor bleeding during COVID-19. Yerramilli et al[1] recommend against 10 Gy in 1 fraction owing to late gastrointestinal (GI) toxicity and recommend 4 Gy × 5 or 3.7 Gy × 4 twice daily. Onsrud et al[3] observed late GI toxicity in patients with bleeding gynecologic malignancies treated with 2 or 3 10 Gy fractions; however, no late GI toxicity was observed after a single 10 Gy fraction.[3] Other studies have reported bleeding control rates approaching 90% in multiple disease sites including GI, gynecologic, genitourinary, head and neck, extremity, and lung cancer after a single fraction of 8 Gy.[4-6] A single 8 Gy is also widely used in some countries, including Canada and the Netherlands, and was the preferred approach to palliate bleeding tumors in the pre-COVID-19 era.[7]

Another versatile palliative RT schedule is the 0 to 7-21 regimen, in which a single fraction of 6 or 8 Gy is delivered on day 0, day 7, and a third time 2 weeks later if needed, while ensuring the final fraction is off-cord and off the brain stem to reduce toxicity risk. This protocol has been studied in multiple contexts and is effective for both symptom palliation and local tumor control.[8-10] In head and neck cancers, Ngyuen et al[8] found symptom response in over 80% of patients with 31% having a complete clinical response. Similar responses were reported in gynecologic cancers and nodular melanoma.[9,10] A frequent strategy when using 0 to 7-21 is to reassess the patient before each fraction; symptoms are often adequately palliated after 1 or 2 8 Gy fractions. A regimen of 0 to 7-21 allows for shared decision-making with the patient, assessment of response to guide decision making, reduced visits, and a chance for sustained local control, as long as tolerances to organs at risk are respected. In the COVID-19 era, this schedule also allows flexibility regarding treatment days, and ensures that a higher

Sources of support: This work had no specific funding.

Disclosures: L.A.D. has a licensing agreement with Raystation that is unrelated to this work.

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https://doi.org/10.1016/j.adro.2020.04.017

biologically effective dose has been delivered if the course needs to be stopped early (compared with 1 or 2 fractions of other palliative regimens).

Acknowledgments

Allan and Ruth Kerbel Palliative Radiation Oncology Program

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