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COVID-19 RAPID COMMUNICATION

Letter from Switzerland

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Received Mar 12, 2020. Accepted for publication Mar 14, 2020.

The outbreak of Coronavirus disease 2019 (COVID-19) in December 2019 has been declared a public health emergency by the World Health Organization. Originating from China, the epidemic has spread to 115 countries around the world, with more than 100,000 cases of COVID-19 reported, including more than 4000 deaths.¹ After China, the epidemic has struck hardest in Italy, with 827 deaths in a few weeks, leading the Italian government to extend emergency COVID-19 measures, including travel restrictions and a ban on public gatherings to the entire country in an effort to contain the epidemic. On March 11, 2020 the World Health Organization declared the COVID-19 outbreak a pandemic.

In addition to the challenge of containing the spread of COVID-19, hospital management of infected patients remains a major burden for the health care system. Although not on the front line in fighting the disease, radiation oncologists are nevertheless directly affected by this situation. First, radiation oncology departments, like other hospital departments, have to face staff shortages due to quarantine holding and requisitioning. Second, patients with cancer treated in radiation oncology departments are often frail and immunocompromised and at risk of being severely affected if infected by COVID-19. The more time they spend in hospitals and public environments the more they are likely to be infected and/or to spread COVID-19.

The *primum non nocere* of the Hippocratic Oath becomes more relevant than ever in the context of this pandemic and leads us to another level of understanding of this principle: an understanding that forces us to rethink and adapt our current practices of treating patients with cancer with the provision of high-quality care always kept in mind.

Certainly, prioritizing radiation therapy (RT) treatments and postponing nonessential procedures and visits are crucial for any radiation oncologist in dealing with the COVID-19 pandemic. At the same time, rethinking our institutional RT fractionations by implementing hypofractionated schedules may represent, when feasible, the essential paradigm to decrease the access of patients with cancer to the hospital and limit the potential spread of COVID-19. Although hypofractionation has been validated in many tumor locations, its use, for several reasons and country-based differences, is often far from being considered standard. For breast cancer, in some countries, less than 15% of postmastectomy and regional irradiations are delivered with hypofractionation,² unlike in the United Kingdom and the Netherlands where moderate hypofractionated RT is currently used for regional treatments.³ In rectal cancer, despite the evidence coming from randomized trials,⁴ short-course RT is clearly under-proposed in the neoadjuvant setting compared with long-course chemo-RT protocols.^{5,6} As for prostate cancer, all the level 1 evidence converges on the equivalence of moderate hypofractionation and standard fractionation.⁷ Moreover, results of extreme hypofractionated schedules are very promising. Last but not least, single-fraction RT is a validated option for patients with symptomatic uncomplicated bone metastases⁸ that unfortunately remains internationally underused.⁹

COVID-19 is an emerging infection disease of global public health concern. Radiation oncologists, as part of the health care worker community, are directly involved in the fight against the viral spread. They face their own challenge, however, which is to minimize the epidemic's effect on

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Disclosures: none.

cancer treatment. Use of practical measures to mitigate the effect of treatment interruptions,¹⁰ but also the wider implementation of hypofractionated schedules in clinical practice, can make our discipline adaptable in exceptional times such as these. Let us think about that and act accordingly. Probably, it is time to consider that less is better.

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