Journal Pre-proofs

Letter to the Editor

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Dear Editor,

The recent outbreak of the novel Coronavirus SARS-CoV-2 has dramatically hit many hospitals, involving an overwhelming number of patients. Most of them suffered a change in their diagnostic and therapeutic program. Cancer patients represent one of the most fragile groups due to their compromised clinical conditions exasperated by age, comorbidities, immunosuppression status and by the number of hospital visits requested for the radiation therapy course.

The radiation oncology scientific community reacted quickly trying to set new indications to manage anticancer treatments during this emergency. A wide series of editorials, case-reports and article has been

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rapidly published in order to share knowledge and experiences. Recently, *Radiotherapy and Oncology* published an article entitled "*Practice recommendation for lung cancer radiotherapy during the COVID-19 pandemic: An ESTRO-ASTRO consensus statement*" [1] in which a panel of international experts contributed to a series of pragmatic recommendations to adapt lung cancer radiotherapy in an "early" risk-mitigation scenario and in a severe "later" pandemic scenario. Advices covered six different clinical scenarios: Stage I NSCLC, Stage III NSCLC, PORT NSCLC, LS SLCLC, PCI SCLC and palliative NSCLC.

The Authors should be congratulated, since many of these suggestions are widely shareable.

However, we think some statements should be interpreted very cautiously. Authors state that "Regarding postponement or interruption of treatment for COVID-19 positive patients during scenario 2, since the consensus in Scenario 1 was to postpone and interrupt in all situations, it was concluded that treatment would be postponed/interrupted until the patient recovers and is COVID-19 negative in Scenario 2 as well, since it is a more extreme example." If applied to every patient, this clinical behaviour seems to us to significantly hamper the possibility of cure for a relevant number of COVID-19 positive cases. Because of its high incidence and severity, this is particularly worrisome for stage III disease (that in fact is judged to have a very high priority when triaging patients during the late phase of the pandemic). The global burden of lung cancer is very high (11.6% of all cancers, 2.093.876 cases worldwide in 2018, according to Globocan; https://gco.iarc.fr/today/data/factsheets/cancers/15-Lung-fact-sheet.pdf, accessed April 11, 2020).

Not all COVID-19 positive lung cancer patients are severely ill or doomed to die because of the viral infection. Contemporary "real world" long term survival for Stage III lung cancer is in the region of 15-20% [2]. Death rate for COVID-19 infection is far from being accurately defined, but available estimates range between 2 and 8% [3]. This trade off needs to be discussed with a patient. Delay or simply renounce to treat these patients might well be their main cause of death, especially when treatment is interrupted after a significant number of fractions.

Northern Italy Centres faced since February, 21st the early scenario and since March 2020 the late pandemic scenario and suggested practical indications for radiation therapy [4]. Dedicated procedures should be implemented, such as an internal triage for COVID-19 suspected/positive cases, with fast access to COVID-19 diagnosis (swab and chest CT or radiography) [5,6]. The decision of interrupting or renouncing to treatment is individual and clinical; severity of COVID-19 infection may be defined with one of the available scales [7].

Crucial for this decision is a site-specific evaluation of human and technical resources. Treatments of COVID-19 positive cases should be conducted at separate LINAC shifts, different access paths could be arranged for positive and negative patients; physicists and service technicians may work through remote control and telemedicine; staff members should wear appropriate PPE.

The ESTRO-ASTRO consensus statement on lung cancer radiotherapy during COVID-19 pandemic is a useful and methodologically well conducted "expert opinion" paper but, as pointed out by the Authors themselves, "practitioners must use their clinical judgement when considering how these consensus statements apply to their individual clinical practice". We claim that every effort should be made to guarantee an effective and safe treatment to COVID-19 positive lung cancer patients while accurately protecting other patients and staff from the risk of being infected.

References

- Guckenberger, M., Belka, C., Bezjak, A., Bradley, J., Daly, M.E., DeRuysscher, D., Dziadziuszko, R., Faivre-Finn, C., Flentje, M., Gore, E., Higgins, K.A., Iyengar, P., Kavanagh, B.D., Kumar, S., Le Pechoux, C., Lievens, Y., Lindberg, K., McDonald, F., Ramella, S., Rengan, R., Ricardi, U., Rimner, A., Rodrigues, G.B., Schild, S.E., Senan, S., Simone II, C.B., Slotman, B.J., Stuschke, M., Videtic, G., Widder, J., Yom, S.S., Palma, D., Practice recommendations for lung cancer radiotherapy during the COVID-19 pandemic:An ESTRO-ASTRO consensus statement, Radiotherapy and Oncology (2020), doi: https://doi.org/10.1016/j.radonc.2020.04.
- Ryan, K.J., Skinner, K.E., Fernandes, A.W. et al. Real-world outcomes in patients with unresected stage III non-small cell lung cancer. Med Oncol 36, 24 (2019), doi: <u>https://doiorg.proxy.unibs.it/10.1007/s12032-019-1249-1</u>
- 3. Verity, R., Okell, L.C., Dorigatti, I. et al., Estimates of the severity of coronavirus disease 2019: a model-based analysis. Lancet Infect Dis, (2020), doi: https://doi.org/10.1016/S1473-3099(20)30243-7
- Filippi, A.R., Russi, E., Magrini, S.M., Corvò, R. Letter from Italy: First practical indications for radiation therapy departments during COVID-19 outbreak. Int JRadiat Oncol Biol Phys. 2020 Mar 19. pii: S0360-3016(20)30930-5. doi:10.1016/j.ijrobp.2020.03.007. [Epub ahead of print] PubMed PMID: 32199941; PubMed Central PMCID: PMC7141469
- 5. Borghesi, A., Maroldi, R., COVID-19 outbreak in Italy: Experimental chest x-ray scoring system for quantifying and monitoring disease progression, Nuclear Medicine & Medical Imaging, 2020, DOI:10.21203/rs.3.rs-19842/v1
- 6. Borghesi,A., Zigliani ,A., Masciullo , R., Golemi , S., Maculotti , P., Farina ,D., Maroldi, R., *Radiographic severity index in COVID-19 pneumonia: relationship to age and sex in 783 Italian patients*, Nuclear Medicine & Medical Imaging, 2020, DOI:10.21203/rs.3.rs-19498/v1
- https://www.mdcalc.com/brescia-covid-respiratory-severity-scale-bcrss-algorithm. Accessed April 11, 2020