



LETTERS TO THE EDITOR

Intensive care in cancer patients in the age of the multidisciplinary approach of cancer treatments: The radiotherapy perspective[☆]



Cuidados intensivos de pacientes oncológicos en la era del tratamiento multidisciplinar: la perspectiva desde la oncología radioterápica

Dear Editor,

We have been following with great interest Carmona-Bayonas et al.'s paper on the multidisciplinary approach that needs to be taken into account in the prognosis of cancer patients who are experiencing reversible critical conditions.¹ We are on the same page with the authors when they talk about the progress made in the management of multiorgan failure in intensive care units (ICU), added to the revolution we have experienced in the anti-tumor therapeutic arsenal, which leads to re-think the real possibilities of patients with severe acute conditions with neoplastic processes.

However, when it comes to describing the therapeutic advances made in the management of cancer patients, the authors do not mention the use of radiotherapy (RT). As a matter of fact, there has been a revolution in the field of cancer radiotherapy during the last few years and this is something that should be taken into consideration, since this also contributes to increasing the life expectancy of patients with neoplastic diseases who can end up in the ICU.

As Atun et al.² put it "Radiotherapy is a critical and inseparable component of comprehensive cancer treatment and care". As a matter of fact, the new modalities of RT including its applications in intensity-modulated radiotherapy (IMRT), image-guided radiotherapy (IGRT), high dose-rate

brachytherapy (HDR), stereotactic body radiation therapy (SBRT), stereotactic radiosurgery (SRS), proton therapy, and carbon ion radiotherapy (CIRT) have significantly improved local control, the possibilities of survival, and the quality of life of patients, and all thanks to optimizing the distribution of the radiation dose absorbed in the tissues with millimetric accuracy. A recent example includes the use of SBRT for the management of non-small cell lung cancer in early stages, where dose hypofractionation significantly increased local control and the overall survival of these patients.³ Also, during the last few years, it has gained special interest the immunomodulating effect of RT, that has been enhanced when adding the immunotherapy drugs described by Carmona-Bayonas et al.¹ Such an effect increases antigen expression giving immune cells more capability to recognize and destroy the tumor. Surprising findings such as the response of non-irradiated metastatic lesions at a distance from the tumor treated with RT have already been reported. This effect known as the abscopal effect is part of the actual experimental lines and future progress of this type of cancer treatment.⁴

Lastly, and as it was already exposed by the scientific journal *Nature* back in September 2015, if we want our initiatives to successfully impact health and improve scientific knowledge, a multidisciplinary approach of medical conditions is essential, where each specialist plays a particular and fundamental role to improve our results.⁵

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Complexity and uncertainty in the critical care of cancer patients in the era of immunotherapy and targeted therapies



Complejidad e incertidumbre en cuidados críticos para pacientes con cáncer en la era de la inmunoterapia y terapias dirigidas

Dear Editor:

We have carefully read the letter from Illescas-Vacas et al. regarding SEOM-SEMICYUC's commitment to optimize the care of cancer patients admitted to Intensive Care Units.^{1,2} We agree with the authors that radiotherapy has evolved with important technological advances in recent years, with more precise, effective and less toxic treatments that contribute to improve survival. Likewise, radiotherapy, in general, is associated with low acute potential toxicity if administered in monotherapy, without concomitant systemic treatment. On the contrary, systemic cancer treatments, chemotherapy, anti-target agents and immunotherapy, among others, have made it possible for a group of patients with advanced disease becoming long-term survivors. Nevertheless, these drugs not only bring new opportunities for patients, but also new challenges and toxicities, creating greater complexity and uncertainty in the field of critical care. In the previous decade, when the prognosis was universally bleak, decision-making was simple, the only solution often being palliative care. However, admission and support in the Intensive Care Unit of a patient with metastatic cancer may currently be justified if it is known that his tumor expresses a target for which specific treatment is available. In addition, a patient with advanced cancer who develops severe toxicity while receiving immunotherapy may require advanced supportive care if a tumor response has been confirmed. These oncological situations and emergencies, which are increasingly common nowadays, have led the SEOM-SEMICYUC team to develop an informative document in which they comment on the oncological scenarios and treatments that are most associated with an acute or emergency condition, something that is especially common in advanced cancers with systemic treatments. This paper shows the two great challenges that technology is imposing on clinical decision making: (1) to correctly transmit information between professionals

on individualized prognosis, sometimes based on complex biomarkers,³ (2) to assume that sometimes we will have lost our ability to identify which patients are going to be long-term survivors, so we will be required to provide many of them with adequate support.^{3,4}

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Conflict of interest

The authors state that they have no conflict of interest to declare.

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