Cancer Patients and Oncology Clinical Practice in COVID-19 Pandemic

Editorial

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Since early 2020, we are dealing with the unexpected outspread of COVID-19 pandemic, at a worldwide scale. COVID-19 is an infection from a novel virus from corona family (Severe Acute Respiratory Syndrome Corona Virus 2 – SARS-CoV-2) that was first reported in December 2019 in China (Wuhan, Hubei province).

One of the most prominent characteristics of COVID-19 is the rapid spreading, with more than 20 million cases and more than 700,000 deaths all-over the world by mid August 2020. COVID-19 symptoms are in most cases of respiratory origin, including fever, cough, chest pain, and shortness of breath.^[1] However, SARS-CoV-2 could also affect any system of the human body and present with a variety of symptoms, such as gastrointestinal or ocular ones.^[1] Currently, there are neither vaccines, nor specific drugs against SARS-CoV-2 and therapy of the infection is mainly symptomatic.

Venous thromboembolism (VTE) is common in acutely ill patients with COVID-19 infection, seen in up to 1/3 of patients in the intensive care unit (ICU), even when prophylactic anticoagulation is used.^[2] The most common pattern of coagulopathy observed in patients hospitalized with COVID-19 is characterized by elevations in fibrinogen and D-dimer levels. This correlates with parallel rise in inflammatory markers.^[2] The management of VTE in COVID-19 patients is based in anticoagulation therapy mainly using Low Molecular Weight Heparins (LMWHs).^[2] Besides that, thromboprophylaxis in COVID-19 patients should be offered on a case by case approach. Moreover, heparin effects beyond anticoagulation could play a role.

Cancer patients are known to be immunocompromised due to cancer itself and the antineoplastic treatment. Thus, cancer patients are labeled as “COVID-19 vulnerable”.

^[3] Due to the evolving situation, no definitive data exist describing the effect of COVID-19 in cancer patients. Accumulating evidence though suggest that cancer patients are at higher risk of SARS-Cov-2 infection and have increased mortality and morbidity from COVID-19.^[4,5] Analogous evidence led to a dramatic change in cancer patients' management amid the initial eruption of the pandemic such as interruption of chemotherapies, change of intravenous treatments to oral regimens as well as change in the frequency of immunotherapies. This is applicable to specific subgroups of patients. For example, patients with thoracic malignancies are especially vulnerable to COVID-19 due to comorbidities, smoking, and disease related lung damage. In this issue, optimal management of patients with rare lung cancer histologies as well as the clinical biomarkers to guide treatment in lung cancer patients are reviewed.^[6,7] In addition, Li et al. review the data regarding the role of chemotherapy and radiotherapy in patients near their end of life.^[8] Currently, all major oncological associations have published guidelines to guide management of cancer patients during COVID-19 pandemic that prioritize diagnostic procedures, surgical, and medical treatment in relation to the anticipated benefit and the risk of SARS-CoV-2 infection.

In addition, cancer, alike COVID-19 infection, is strongly associated with thrombosis. Venous Thromboembolism (VTE) occurs in up to 20% of patients with cancer, contributes significantly in morbidity and mortality, and interferes with cancer treatment. In fact, Cancer-Associated Thrombosis (CAT) is the second leading cause of death among cancer patients. Moreover, oncology patients have higher rates of VTE recurrence and bleedings with anticoagulants. Finally, CAT can be

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the first clinical manifestation of an undiagnosed cancer. Consequently, VTE prophylaxis or treatment is of great importance for cancer patients, even more for those with COVID-19 infection. Currently, Low Molecular Weight Heparins (LMWHs) constitute the established anticoagulation treatment in cancer patients, but compelling data for novel agents emerge. Evidence regarding all available treatment options for VTE treatment and prophylaxis in cancer patients is reviewed in this issue of FCO.^[9] Since cancer patients may also tolerate higher doses of LMWHs without increasing the bleeding risk further, a high thrombotic burden-adapted strategy could help high-risk patients who may benefit from the use of more effective LMWHs doses if they have low bleeding risk.^[10]

It is of great importance, that doctors and caregivers pay attention in this vulnerable group of patients. There is a great need for continuous care in cancer

patients, both in diagnosis and therapy, despite the potential exposure in SARS-CoV-2 infection, which could be fatal for them. Doctors should make efforts, in order to protect cancer patients from the infection, together with the disease progression resulting from any diagnostic and therapeutic delays. Continuation of active anticancer therapy should be individualized according to the patient's condition, the purpose of treatment, tolerance, and response to treatment. In addition, cancer and its therapy make these patients more susceptible to respiratory infections, due to the compromised immune response to respiratory bacteria and viruses. Thus, the epidemic spread of COVID-19 has posed great challenges to the clinical practice of oncologists, especially for integrative cancer therapy.

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