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To cite this article: Hassan Nourmohammadi, Golnaz Azami, Fakhredin Taghinezhad & Elham Shafiei (2021) Risk and Benefit of Antiplatelet Therapy in COVID-19 Patients with Cancer and Thrombocytopenia: Letter to the Editor, *Cancer Investigation*, 39:3, 217-218, DOI: [10.1080/07357907.2020.1871485](https://doi.org/10.1080/07357907.2020.1871485)

To link to this article: <https://doi.org/10.1080/07357907.2020.1871485>



Published online: 14 Jan 2021.



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## Risk and Benefit of Antiplatelet Therapy in COVID-19 Patients with Cancer and Thrombocytopenia: Letter to the Editor

Dear Editor,

The current outbreak of the novel coronavirus disease (COVID-19) began in Wuhan, China, become a public health emergency concern around the world. The signs and symptoms of COVID-19 present at the onset of illness vary. Over the course of the illness, the majority of COVID-19 patients have been reported to experience the following symptoms: fever (83–99%), cough (59–82%), fatigue (44–70%), anorexia (40–84%), shortness of breath (31–40%), sputum production (28–33%), myalgia (11–35%) (1). Given the high inflammatory burden of COVID-19, significant cardiovascular complications with infection are predicted (2). At present, no specific antiviral therapies have been proven effective for treatments of patient with COVID-19 infection. Thus, the treatment will be preliminary based on supportive care and treatment of symptomatic conditions. Current practice guideline recommends the administration of antiplatelet agents, beta blockers, ACE inhibitors, and statins. The safety of antiplatelet and anticoagulant agents has not been characterized in patients with COVID-19. Up to now, few data are available in the literature regarding the safety and tolerability of such medications in patients who have cancer and thrombocytopenia. Lymphocytopenia (83.2%), thrombocytopenia (36.2%), and leukopenia (33.7%) are frequently observed in patient with COVID-19 infection (2). These complications are associated with increased risk of bleeding and recurrent thrombotic events. Thrombocytopenia is known to expose patient to cardio-embolic events and bleeding complications which in turn can complicate the condition or treatment. The use of antiplatelet drugs may double the patient risk of developing bleeding complications.

So far, limited evidence is available regarding a higher incidence of COVID-19 in patients with cancer. Recent limited knowledge from China, U.S, and Italy do however seem to confirm a higher risk. Thus, the benefit versus risk ratio of cancer treatment needs to be reconsidered during the COVID-19 pandemic (3). The association between cancer development and coagulation has been confirmed for centuries. Existing literature indicated that platelet plays major roles in cancer progression by behaving like immune cells and providing surface and granular contents for several interactions. Therefore, the anti-cancer potential of antiplatelet therapy has been intensively examined over years.

Antiplatelet medications are found to effectively prevent cancer, improve survival of cancer patient, decrease tumor growth, and metastatic potential (4). However, insufficient data is available on how specific types of cancer and advancement of disease progression depend on platelet function. Moreover, chronic administration of antiplatelet agents and thrombocytopenia related to risk of bleeding complication must be considered wisely in clinical practice (4). Therefore, the risk and benefit of antiplatelet and anticoagulant therapy should be critically evaluated to minimize the risk of bleeding sequelae and achieve optimal outcomes in COVID-19 patients who have cancer and thrombocytopenia. Until this area is investigated more fully no definitive recommendation can be made until additional data are available. Until then, each patient should be treated in accordance with the specific clinical circumstances. Approaches to the treatment of COVID-19 in cancer and thrombocytopenic patients might be better directed toward the evaluation of platelet function than toward platelet count. The risk versus benefit of antithrombotic therapy and invasive procedures may need to take this information into account.

### Declaration of interest

The authors declared no conflict of interest.

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Received 1 July 2020; accepted 30 December 2020

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