ICU
MANAGEMENT & PRACTICE

Anticoagulation Therapy in Patients With COVID-19

No therapy is currently recommended for COVID-19. Some data from registries and autopsies suggest a potential role for coagulopathy in influencing outcome in patients with COVID-19. In COVID-19 patients with respiratory insufficiency, a combination of disseminated intravascular coagulation and localised pulmonary thrombotic microangiopathy may be present. Hence, anticoagulation therapy could be used in some COVID-19 patients.

This study aimed to evaluate the efficacy of anticoagulation in hospitalised patients with COVID-19 and its impact on patient survival. The researchers present data from a cohort study of 5838 patients with COVID-19. Patients were enrolled from seven countries, including Spain, Italy, Ecuador, Cuba, Germany, China and Canada.

Patients were included in the anticoagulation group if they were treated during hospitalisation with systemic or prophylactic anticoagulation, including oral, subcutaneous or IV forms. The primary endpoint of the study was all-cause mortality during hospitalisation. Secondary endpoints included other events such as invasive mechanical ventilation, noninvasive mechanical ventilation, prone, respiratory insufficiency, heart failure, renal failure, upper respiratory tract involvement, pneumonia, sepsis, upper respiratory tract involvement, pneumonia, sepsis, systemic inflammatory response syndrome, clinically relevant bleeding, haemoptysis, and embolic events.

Of the 5838 patients enrolled in the study, 2601 patients received anticoagulation therapy during hospitalisation. Three hundred twenty-seven patients were taking anticoagulation therapy before hospitalisation. Patients who received anticoagulation therapy were older, mostly male, and had diabetes, obesity, renal insufficiency, history of lung disease and/or heart disease.

Anticoagulation was not found to be associated with a better survival rate among patients without previous anticoagulation therapy. There was a higher risk of bleeding in these patients. Lower mortality rates were associated with prophylactic parenteral anticoagulation than with therapeutic anticoagulation therapy.

In patients with respiratory failure, anticoagulation started during hospitalisation was associated with lower mortality rates and not a significantly higher risk of bleeding. Three hundred ninety-one patients underwent invasive ventilation. Of these, 154 received prophylactic dose anticoagulation, and 110 received the therapeutic dose. Additional anticoagulation therapy was associated with lower mortality rates without increased rates of bleeding.

Five-hundred eighty-three patients underwent noninvasive ventilation. One hundred eighty-six received prophylactic dose anticoagulation, and 127 received the therapeutic dose. Additional anticoagulation therapy was not associated with lower mortality rates without increased rates of bleeding.

The researchers conclude that anticoagulation therapy among patients with COVID-19 was not associated with better survival rates but with higher bleeding risk. However, those admitted with respiratory failure requiring invasive ventilation may benefit in terms of lower mortality.

Source: Critical Care Medicine

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