

SIDE EFFECTS TO ANTITHROMBOTIC THERAPY IN PATIENTS WITH COVID-19 INFECTION

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Introduction. Severe Acute Coronary Syndrome (SARS) corona virus-2 as SARS-CoV-2, led to an outbreak of respiratory infections started from Wuhan, China. COVID-19 has been associated with inflammation and prothrombotic state. Due to the state of hypercoagulability in covid-19, use of antithrombotic therapy for preventing thrombotic complications occurred. **Purpose of the study.** The relative risk versus benefit of antithrombotic therapy have not been addressed with clear distinction as of till now. This study focuses on possible negative side of therapy in covid patients using existing literature and clinical study findings. **Materials and Methods.** This study was performed by analysis and breakdown of existing literature concerning the topics SARS-CoV-2, hypercoagulability and antithrombotic therapy using online search engines like Google Scholar, PubMed, Hinari etc. The pathological association studies and drugs for treatment of SARS-CoV-2 patients were also referred for the study. **Results.** Major negative effect of antithrombotic therapy was bleeding. Anticoagulants was associated with increased risk of bleeding and complications mostly in the-

rapeutic dose. In critically ill patients, therapeutic dose did not improve outcome but increased risk of bleeding whereas in moderately ill patients result was contradictory. In the latter therapeutic-dose heparin or LMWHs increased survival in different randomized clinical trials but no difference in primary result in this category from other studies. Nirmatrelvir-ritonavir (Paxlovid) usage interacted with some medications. There was an increased risk of blood clots when Paxlovid had higher risk of blood clots with clopidogrel and bleeding with ticagrelor. It interacted with DOACs, simvastatin, lovastatin, and anti-arrhythmics. Dexamethasone and covid infection had effects on drug metabolism. **Conclusions.** Most important entities associated with negative effect of anti-thrombotic therapy in covid patients needed to be addressed were bleeding and drug interactions. Rather than a simple cause, multiple factors like drug regimen, dosage, concomitant medications, and individual patient factors play a role in development of side effects in covid patients. **Keywords:** SARS-CoV-2, Antithrombotic therapy.