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“Impact of Covid 19 on coagulation” Nurse’s responsibility.

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Coagulation disorders are disturbances in the body’s clotting ability. It can result in either a hemorrhage or thrombosis. Common bleeding disorders are hemophilia, Willebrand disease, clotting factor deficiencies, Disseminated intravascular coagulation, Overdevelopment of circulating anticoagulants, Vitamin K deficiency, Platelet dysfunction. Clotting disorders are Factor V Leiden, Antithrombin III (ATIII) deficiency, Protein C or protein S deficiency, Prothrombin (PT) gene mutation. (Indiana University Health, 2021)

Studies are showing there is a relationship between Covid 19 and blood coagulation. Recent clinical data has highlighted that coronavirus disease 2019 (COVID-19) is associated with a significant risk of thrombotic complications ranging from microvascular thrombosis, venous thromboembolic disease, and stroke. Importantly, thrombotic complications are markers of severe COVID-19 and are associated with multiorgan failure and increased mortality. (James D, 2020).

The micro-thrombotic pattern, more specific for COVID-19, results from a massive activation of coagulation strictly coupled with a hyper-intense inflammatory and immune reaction. This destroys alveoli and obstructive neoangiogenesis. The involvement of fibrinolysis, which consists of the activation/inhibition process, finally conducive to a fibrinolytic shutdown that reinforces the persistence of micro-thrombi. (Sergio Coccheri 2020).

The tissue factor plays important role in thrombus formation. Axel Rosell 2020, found that Covid 19 induces the release of TF-positive EVs into the circulation that are likely to contribute to thrombosis in patients with COVID-19. EV TF Extracellular vesicle and Tissue Factor (EV TF) activity were also associated with severity and mortality.

However, the nurse’s role in managing coagulation disorders in Covid-19 is alertness on Coagulation profile monitoring, signs and symptoms of the coagulation, and monitoring the bleeding symptoms from the treatment adverse effect. The nurse should watch for thromboembolism symptoms includes swelling, pain, tenderness, warm sensation, tachycardia, reddish discoloration, O2 saturation, chest pain, headache, etc. The tendency of bleeding should be monitored by Vital signs changes, abdominal distention, blood in the urine or stool, bruising, extreme fatigue, joint pain, nose bleeds, headache. (Indiana University Health, 2021).