Misuse of anticoagulants in COVID-19 patient: A case of gastrointestinal bleeding

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Case presentation

A previously healthy 38 years old male patient, neither diabetic nor hypertensive presented to the outpatient clinic of the Egyptian liver research Institute and Hospital (ELRIAH) following episodes of melena since two days.

One week earlier, the patient was presented to his primary care physician (PCP) with fever (38.5 C) and dry cough. His initial laboratory results revealed White blood cells (WBC) of 6.71 K/µL (normal range: 4-11 K/µL), Lymphocytes (16.5 %), hemoglobin (Hgb) of 13.1 g/dL (normal range: 11.6-15.0 g/dL), platelets of 250 x 10^3/µL (normal range: 155-366 x 10^3/µL), normal prothrombin time ratio of 12 seconds (reference range for PT 13.5-15.0 seconds), elevated C-reactive protein (CRP) at 30 mg/dL (reference range: <6 mg/dL) and normal D-dimer of 212 ng/mL (reference range: less than 500 ng/mL). Computed tomography (CT) of the chest showed typical Covid-19 findings; bilateral areas of ground-glass opacities in a peripheral distribution (CORADS 5).

The patient was managed at home and his treating physician described the following; Athizromycin 500 mg once daily, Paracetamol 500 mg twice daily, Vitamin C 500mg daily, oral corticosteroids; IV dexamethasone 20 mg/day, Ceftriaxone 1 gm IV once daily and oral anticoagulant; Rivaroxaban 10 mg twice daily.

Physical examination at ELRIAH revealed pallor, body temperature of 37.9C, blood pressure of 110/70 mmHg, pulse of 98 beats per minute, respiratory rate of 14 breaths per minute, and oxygen saturation of 96% using pulse-oximetry while the patient was breathing room air. His abdomen was soft with no rebound tenderness or guarding. There was no hepatosplenomegaly, ascites or abdominal mass. A complete blood count showed a hemoglobin concentration of 10.5 gm / dl and platelet count of 200 x 10^3/µL. Computed tomography (CT) of the chest was not repeated. We decided that blood transfusion and emergency upper endoscopy were not indicated, and oral anticoagulants (Rivaroxaban) should be stopped. The patient was initially given a proton pump inhibitor (Pantoprazole IV 40 mg once daily) and anti-hemorrhagic measurements. The patient was advised to continue Azithromycin 500 mg once daily, Paracetamol 500 mg twice daily and Vitamin C 500 mg daily and to return after one week. His body temperature is 37.4 C, blood pressure of 120/75 mmHg. His laboratory results revealed normal complete blood count and prothrombin time/international normalized ratio.

Discussion

Since the beginning of the COVID-19 pandemic, serious thrombotic complications have been reported in infected patients especially those who are critically ill [1].

Current guidelines recommend assessment of bleeding risk and to start pharmacological venous thromboembolism (VTE) prophylaxis with low molecular weight heparin (LMWH) unless contraindicated in hospitalized acutely ill patients with COVID-19 [2].

However, in clinical practice, oral anticoagulant therapy is widely used in non-hospitalized COVID-19 patients as prophylaxis for thromboembolic events, despite its well-known adverse effect and the risk of bleeding that requires constant monitoring.

This case reported the misuse of oral anticoagulant in non-hospitalized cases COVID-19 patients who have no risk of thromboembolism and to emphasize that prophylactic treatment with anticoagulants should not be generalized for all patients with COVID-19.

Clinicians should know that therapeutic dose of either unfractionated heparin (UFH) or subcutaneous low molecular weight heparin (LMWH) should not be offered in the treatment of patients with COVID-19 unless there is a strong indication for therapeutic anti-coagulation, such as management of acute deep vein thrombosis or pulmonary emboli or in patients who are at high risk who have predisposing factors as old age, hypertension, diabetes or history of thromboembolic events [3].

Previous report showed that the etiologies for GIT bleeding due to direct viral cytotoxic effect in the gut or coagulopathy in patients severely COVID-19 [4]. In addition, GI bleeding in patients with SARS is caused by the SARS virus itself, which leads to vasodilation and hyperemia of

the GI mucosa and bleeding in specific GI segments [5,6]. However, we suggest that the cause of GIT bleeding in this patient is the well-known side effect of oral anticoagulants.

References

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