

**CASE REPORT: A 30-YEAR-OLD ORAL CONTRACEPTIVE USER WITH MILD COVID-19**

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**ABSTRACT**

Infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is associated with a prothrombotic state and an increased incidence of thromboembolic disease. Non-hospitalized patients with COVID-19 should not routinely be tested for measures of coagulopathy, such as D-dimer level, prothrombin time, fibrinogen level, and platelet count. Although abnormalities of these markers have been associated with worse outcomes, there is a lack of prospective data demonstrating that they can be used for risk stratification in those who are asymptomatic or those with mild SARS-CoV-2 infection. Here we described a remarkably mild case of COVID-19 in a 30-year-old female who has been taking oral contraceptive pill (OCP) for more than two years and she was found of having very high D-dimer level (2320 µg/L). The case demonstrates that taking OCP for long time can be considered as a comorbid condition and thromboprophylaxis should be given in patients with mild COVID-19 to prevent thromboembolic disease.

**KEYWORDS:** D-dimer level, prothrombin time, fibrinogen level, and platelet count.

**HISTORY OF PRESENTATION**

A 30 -year-old Bangladeshi lady developed fever, headache, severe fatigue, nausea and occasional diarrhoea for 5 days. It was started since 18 June, 2020. She was tested COVID-19 positive (rt-PCR of nasal swab) on 25 June, 2020. She had no known comorbidity. Since then she was treated as a mild case of COVID-19 at her home. Her vitals were stable and oxygen saturations were between 96 to 98% in pulseoxymeter. She was on antipyretic, antiemetic, probiotics with

vitamin c, d and zinc supplement. Earlier, her elder brother suffered from COVID-19 who also stayed at home during his illness. She had no symptoms like cough, shortness of breath or loss of smell.

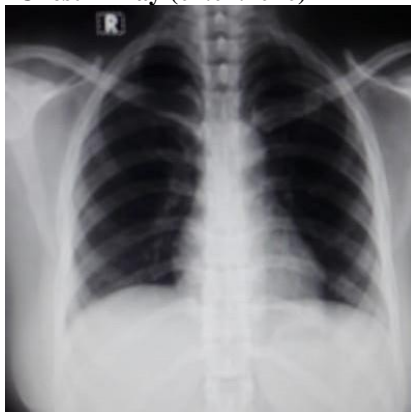
**Past Medical History:** Taking Oral Contraceptive Pill for two and half years

**Differential diagnosis:** Severe COVID-19

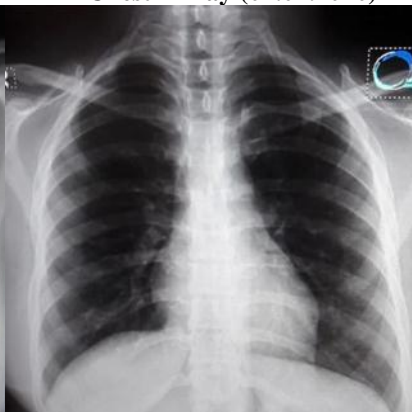
**Investigations**

Investigations	01.07.2020	07.07.2020
Haemoglobin (gm/dl)	10.7	11.0
White Blood Cell (x10 <sup>3</sup> /µL)	7.7	5.8
Neutrophil (%)	68.5	57.2
Lymphocyte (%)	26.9	34.4
Platelet Count (x10 <sup>3</sup> /µL)	279	490
ALT (U/L)		23
C-Reactive Protein (mg/L) (<6)	<b>96.0</b>	39
D-dimer (µg/L, FEU) (0-550)	<b>2320.0</b>	490
Ferritin (µg/L) (Adult female 10-120)		215
Chest X-ray (P/A view)	Normal	Normal

Chest X-Ray (01.07.2020)



Chest X-Ray (07.07.2020)



### Management

She was given Enoxaparin 40 mg subcutaneously twice daily from 01 July, 2020 to 08 July, 2020. After that it was replaced with oral anti-coagulant (Rivaroxaban 10 mg) daily. Other supportive treatments like vitamins (B, C, D) and zinc were given also.

### DISCUSSION

Since the outbreak of Covid-19, we are getting new information every day. It now is evident that coagulopathy is common in patients with severe COVID-19, and both venous and arterial thromboembolism have been reported.<sup>[3,4,5,6]</sup> But Non-hospitalized patients with COVID-19 or mild COVID-19 patients should not routinely be tested for measures of coagulopathy, such as D-dimer level, prothrombin time, fibrinogen level, and platelet count. Although abnormalities of these markers have been associated with worse outcomes, there is a lack of prospective data demonstrating that they can be used for risk stratification in those who are asymptomatic or those with mild SARS-CoV-2 infection.<sup>[7]</sup> For mild non hospitalized COVID-19 patients, there is no recommendation of initiating anticoagulant for VTE prophylaxis or therapeutic doses.<sup>[7]</sup> Our patient was not treated with anticoagulant initially. Later she was given anticoagulant as her D-dimer level raised more than 4 fold from the baseline.<sup>[8]</sup> Patient with mild COVID-19 and comorbidities like hypertension, cardiovascular disease, diabetes mellitus, obesity, malignancy, can be given anticoagulant prophylaxis.<sup>[9]</sup> But our patient did not have such comorbid conditions. She used to take oral contraceptive pill for more than two and half years. Women are at high risk of developing thromboembolic conditions those who are using combined oral contraceptives than non-users.<sup>[10]</sup> COVID-19 even at milder form may increase the chance of developing thromboembolic manifestations in OCP users. But till date there is no such data available.

### Follow-up

She started to feel better after starting Enoxaparin subcutaneously. She became afebrile since 04 July, 2020. Follow-up D-dimer on 07 July was normal (490 µg/L). She was followed up till 20 July, 2020. Later her rt-PCR for Covid-19 became negative on 20 July, 2020. Now she is doing well.

### CONCLUSION

Since COVID-19 and OCP both are causing thromboembolic manifestations, clinical research may be done on this issue to prevent death and complications.

### Learning Objectives

1. Long term OCP using may be considered as a comorbid condition in patients with COVID-19
2. D-dimer level should be checked in mild COVID-19 patients who takes OCP
3. Thromboprophylaxis should be considered in OCP users who develop mild COVID-19

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