

## Introduction

Pregnancy affected with COVID-19 initially presented with uncertainties but with time more information is available about its effect on pregnancy. Although respiratory symptoms are the most commonly seen clinical manifestation of the disease, a substantial number of infected patients develop involvement of other systems and present with extra-respiratory manifestations like cardiac, gastrointestinal, hepatic, renal, neurological, ocular and hematological symptoms.

## Objective

We report a rare case of a term singleton pregnancy with SARS-CoV-2 infection complicated by preeclampsia, acute fatty liver of pregnancy (AFLP) and acute kidney injury (AKI).

## Case Report

A 32 year old, Para 2 previous vaginal deliveries, was admitted at 38 weeks of gestation feeling generally unwell for three days with cough, nausea, vomiting, sore throat, myalgia and fatigue. She was not vaccinated against Covid-19. On admission she was afebrile, pulse rate was 100 beats/minute, blood pressure was 145/95 mmHg, respiratory rate was 18/minute, oxygen saturation was 97% in room air, protein creatinine ratio of 60.

## Case Report

Her liver function tests were markedly deranged, ALT 629 unit/L, AST 796 unit/L, Urate 497 umol/L with raised urea and creatinine of 154umol/L. Prior to admission patient had regular antenatal visits, with no history of any medical disorder. On examination her reflexes were normal and had no clonus.

Patient tested positive for Covid-19. She was started on Labetalol 200mg twice daily. Provisional diagnosis of preeclampsia complicated by HELLP syndrome was made. Bedside ultrasound scan of upper abdomen showed signs of fatty liver, normal gallbladder and common bile duct. Her case was discussed amongst a multidisciplinary team of Obstetricians, Medical physicians, Anaesthesiologists and Haematologists in view of significant transaminitis, hyperbilirubinemia, deranged coagulation with acute kidney injury (AKI) and relatively well controlled blood pressure.

Decision to proceed with induction of labour was taken with a diagnosis of Covid-19 with AFLP and AKI. She had a central line inserted and was given 2g Fibrinogen, 10mg Vitamin K and 1g Tranexamic acid to optimize coagulation profile. Her labour progressed well after artificial rupture of membranes and a live male infant was delivered by forceps with pudendal block for abnormal fetal blood sample. Postpartum she was transferred to general hospital for ICU care where she responded well to supportive care.

## Discussion

Preeclampsia is one of the most commonly associated co-morbidity with COVID-19 infection in pregnancy.

AFLP is a rare life-threatening disease. Majority of women with AFLP present in the third trimester of pregnancy. It is believed that preeclampsia, HELLP syndrome, thrombocytopenic purpura and AFLP may be a spectrum of the same illness. Clinical diagnosis of AFLP is challenging due to its non-specific symptoms but AFLP is associated with higher degrees of liver enzyme derangement and coagulation abnormalities

## Conclusion

This case illustrates the complexities of COVID-19 in pregnancy and the increased severity of associated co-morbidities. COVID-19 in pregnancy predisposes not just to the respiratory dysfunction but can lead to multiorgan dysfunction. Therefore, the importance of prompt Multidisciplinary discussions is reiterated in this case which lead to positive maternal and fetal outcome.