

## **PE-like syndrome confirmed in a larger cohort**

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### **Objective**

COVID-19 and preeclampsia (PE) have overlapping clinical features and its differential diagnosis might be challenging. The preeclampsia-like syndrome was described in a small series at the beginning of the COVID-19 pandemics. We aimed to confirm the results of the PE-like syndrome with a larger cohort.

### **Methods**

This was a prospective observational study conducted at Vall d'Hebron Hospital Campus (Catalonia, Spain). Study patients were pregnant women positive for SARS-CoV-2 infection admitted to Intensive Care Unit (ICU) for pneumonia, between March 2020 and October 2021. Demographic characteristics, obstetric history, maternal history and biophysical and biochemical markers (soluble fms-like tyrosine kinase-1 [s-Flt-1] and placental growth factor [PlGF] ratio) were recorded. Parameters were analysed before, during and after severe pneumonia.

### **Results**

During the study period 107 women were included for the analysis a total of 26 women fulfilled PE criteria according to the American College of Obstetrics and Gynecology. Of them, 18 were electively delivered during severe pneumonia while 8 remained pregnant after pneumonia. On the one hand, of the 18 women who delivered during pneumonia 6 women were delivered for PE or fetal growth restriction (FGR) and all of them had high sFlt-1/PlGF (>85/110); 10 women were delivered due to severe pneumonia worsening (sFlt-1/PlGF was <38 in 3 of them and unavailable in 7); 1 woman delivered because of PROM (sFlt-1/PlGF unavailable); and 1 woman delivered because of suspected HELLP syndrome at the beginning of the pandemics and had normal sFlt-1/PlGF. On the other hand, all 8 women with PE diagnostic criteria during ICU, which remained pregnant after pneumonia, had normal sFlt-1/PlGF (<38) and PE criteria remitted after pneumonia.

### **Conclusion**

Pregnant women with severe COVID-19 could develop a PE-like syndrome, which might be distinguished from actual PE by sFlt-1/PlGF. The 8 patients who remained pregnant after pneumonia having normal sFlt-1/PlGF fulfilled PE criteria during pneumonia and recovered completely after pneumonia without requiring delivery, suggesting they could have been misdiagnosed as PE when they actually had a PE-like syndrome.