

The prognostic value of extremely high sFlt-1/PLGF in the progression of early onset severe preeclampsia

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Background. To describe a case of severe preeclampsia where the finding of an extremely high sFlt-1/PLGF ratio correlated with fast disease progression.

Case presentation. We reviewed the case of a 36-year-old nulliparous patient with a spontaneous pregnancy and no preeclampsia screening during first trimester CST. She accessed our triage at 28 gw for diarrhoea; a casual diagnosis of oligohydramnios was performed (negative PAMG-1).

Results. A scan revealed stage 1 IUGR (EFW 650 g), increased uterine artery Doppler and normal foetal Doppler. The placenta appeared uneven with hypoechoic areas. Following an increase in her blood pressure, she was started on nifedipine 20 mg TID and underwent steroids for lung maturity. sFlt-1/PLGF ratio was 1,295, and 24-hour urinary protein was 1.523 g. Two days after admission, she developed oliguria and complained of breathing difficulties. A transthoracic echo revealed

normal intravascular volume with a bilateral pleural effusion; this deteriorated in the following days along with a further increase in anti-hypertensive medication. EMCS was performed one week after admission for derangement of maternal conditions. A female baby (690 g) was successfully delivered, APGAR 7-9, arterial pH 7.24 with BE -6. Anti-hypertensive treatment was gradually decreased after EMCS, discharge occurred after 7 days. Pathology revealed a 4cm retroplacental haematoma and maternal-vascular-malperfusion (MVM).

Conclusions. This is an emblematic case of the correlation between an extremely high sFlt1/PLGF ratio, preeclampsia with an exponential clinical derangement and severe placental alterations. sFlt-1/PLGF is validated as a negative predictive tool, yet prospective studies on the prognostic role of sFlt-1/PLGF would be extremely useful to correctly manage patients with early onset preeclampsia.