# FETAL GROWTH RESTRICTION AS PRECURSOR TO ECLAMPSIA-THE CANARY IN THE COAL MINE

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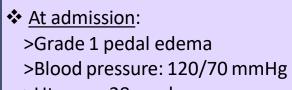
### INTRODUCTION

• Hypertensive disorders are a major cause of maternal mortality, claiming the life of one woman every 7 minutes. In India, the causes of maternal mortality are increasingly attributed to hypertensive disorders, with preeclampsia complicating 5-15% of pregnancies and eclampsia complicating 1.5% of pregnancies.<sup>[1]</sup>

- The ACOG definition of preeclampsia with severe features :
  - systolic blood pressure of 160 mm Hg or more (or) diastolic blood pressure of 110 mm Hg or more on two occasions atleast 4 hours apart
  - Thrombocytopenia
  - Impaired liver function
  - Renal insufficiency
  - Pulmonary edema
  - New onset headache
  - Visual disturbances

### **CASE REPORT**

 A 31 year old patient, with an obstetric score of G2P1L1 and previous LSCS presented at 31 weeks 6 days of gestation with fetal growth restriction(FGR) which was initially diagnosed at 29 weeks. Ultrasound showed a fetus of 1.45 kg, with Doppler showing cerebro placental ratio reversal. The patient was admitted for fetomaternal monitoring.



>Uterus – 28 weeks

- >NST reactive
- > Further BP charting: Normal

✤ Day 2 of admission:

- Complaints of epigastric pain, 1 episode of vomiting with BP reading of 140/90 mmHg
- IV Pantoprazole and Ondansetron given
- An hour later: Clear leaking per vagina noted, diagnosis of preterm prelabor rupture of membranes made
- An hour later: Patient experienced an episode of generalized tonic clonic seizure.
- Coarse crepitations on chest auscultation: Pulmonary edema

### MANAGEMENT

Immediate management:

- She was resuscitated in left lateral position, oxygen by mask given, and loading dose of magnesium sulphate administered.
- Investigations for pre eclampsia sent
- Despite BP recordings in the high-normal range, preeclampsia with severe features were noted, with fetal growth restriction being the first to be identified
- ✤ Intraoperatively:
- **Emergency LSCS done under general** anaesthesia
- live female baby weighing 1.38 kg delivered and shifted to NICU for postnatal monitoring.
- Intra operative ABG showed metabolic acidosis

### Post op :

- Patient shifted to ICU
- were started.
- entry to the ICU.

Investigation	Po
Platelet count	86
Creatinine	1.
AST	98
ALT	4

#### **\*** Further post op course:

- 2D ECHO showed improvement

### DISCUSSION

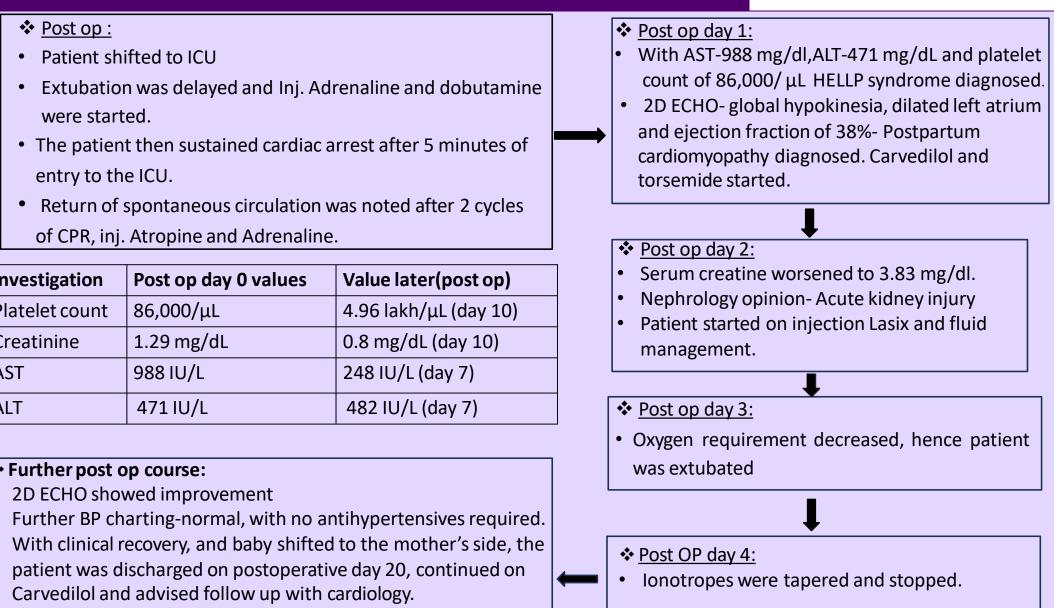
- Preeclampsia is a "pregnancy-specific syndrome that can affect virtually every organ system".[3] While primarily an obstetric complication, eclampsia requires a concerted effort by a multidisciplinary team to be managed effectively.
- Eclampsia, can be preceded by headaches, blurred vision, epigastric/right upper quadrant pain, and altered sensorium. Atleast one of these symptoms is present in 59% to 75% cases.<sup>[2]</sup>
- HELLP syndrome increases maternal and fetal mortality. Typically occuring in third trimester it can also develop postpartum in 30% of cases, as evidenced here.<sup>[4]</sup>
- Early onset fetal growth restriction (FGR) is diagnosed before 32 weeks of gestation and is linked to maternal vascular malperfusion of the placenta leading to elevated sFlt-1/PIGF ratio, typically seen in early onset FGR and hypertensive pregnancy disorders. Around 70% of women with early onset FGR will develop hypertensive disorders of pregnancy, particularly pre-eclampsia.<sup>[5]</sup>

## CONCLUSION

### REFERENCES

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• Therefore even in normotensive women presenting with fetal growth restriction, strict monitoring of blood pressure and investigations to screen for preeclampsia may be indicated, as evidenced by the above case.

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