Case Report

Progressing haemolysis, elevated liver enzymes, low platelet count syndrome: near miss case

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INTRODUCTION

One of the most common complications in pregnancy is hypertensive disorders with one of the most serious expressions of this pathology being HELLP syndrome. The HELLP syndrome is characterized by the presence of a triad: microangiopathic haemolysis, elevated liver enzymes and low platelet count.¹ Differential diagnosis could be acute fatty liver of pregnancy, thrombotic thrombocytopenic purpura, antiphospholipid syndrome and haemolytic uremic syndrome.² The mainstay of treatment involves maternal stabilization and timely delivery. In some patients with HELLP syndrome, activation of coagulation factors and platelets leads to disseminated intravascular coagulation, which in a few becomes uncompensated and contributes to life-threatening multi organ failure.

CASE REPORT

A 25-year-old married average built Hindu female (G3P2L1A0) laborer by occupation was admitted in the hospital in emergency with chief complaint of amenorhea of eight months, pain in abdomen for one day and slight bleeding per vagina for 8 to 10 hours. She had a history of previous two caesarean section with last birth one and half year back only. She had one live issue and single antenatal visit in present pregnancy. At the time of admission her blood pressure was 150/100 mmHg, pulse rate was 90/min, non-febrile, SpO₂ was 98% on room air, urine albumin was +1. On general examination pallor was +1, icterus was +3, cyanosis, clubbing, lymphadenopathy were not present. The patient was not on any anti-hypertensive or any other medication of any type. No clinically significant edema, right upper quadrant or epigastric pain, dyspnoea, visual disturbance was present. On par abdomen examination fundal height of 30 weeks' pregnancy with breech presentation had uterine contraction one per 10 minutes of moderate intensity with scar tenderness with FHS of 92 beats/min. The only scan she had of 10 days back showed a single live intra uterine foetus of 29 weeks 2 days, with anterior placenta, adequate liquor and scar thickness of 3.6 mm. She was taken for emergency CS along with investigations and blood arrangement simultaneously. Intra operatively abdominal adhesions were present and an alive preterm...
low birth weight female baby weighing 1.1 kg was taken out by breech presentation. No active bleeding was there during caesarean section in spite of that a drain was kept in situ. Abdomen was closed in layers. Patient was shifted to post-op room for monitoring. One-unit blood arranged and transfused par operatively. Post-op vitals were normal. Within an hour of caesarean section her drain bag was filled with 200 ml bloody discharge. Uterus was well contracted with no active vaginal bleeding. Vitals and urine output were normal. Abdomen was soft no distension was there.

**Day 1 pre-op investigations**

- Hemoglobin - 12.5 g/dl
- TLC- 16900 cell/mm³
- Platelet count- 0.50 lac/mm³
- RDW - 20.2%
- S. Bb (Total) - 9.85 mg/dl
- S. Bb (Direct) - 5.88 mg/dl
- S. Bb (Indirect) - 3.97 mg/dl
- S. Proteins - 5.39 mg/dl
- S. Albumin - 2.75 mg/dl
- S. Globulins - 2.64 mg/dl
- SGOT 65.30 IU/L
- SGPT 61.39 IU/L
- S. ALP - 712.38 IU/L
- S. Creatinine - 0.59 mg/dl
- S. Urea - 29.56 mg/dl
- S. Uric acid - 6.67 mg/dl
- Prothrombin time
- On patient’s blood 22.60 sec
- On control 13.30 sec
- APTT - 51.20 sec
- INR - 1.76.

**Day 3 post-op investigations**

Viral markers were negative for hepatitis B, C and E. Thyroid profile was normal. The drain however still had 500 ml of collection that was turning serous. Another four units of fresh frozen plasma were arranged and transfused. Her vitals were stable although she now had an anemic and weak look. To her medications higher order antibiotics, haemostatic drugs, laxative syrup were given. Her day 3 investigations showed improvement in her coagulation profile but her liver function test deranged further and kidney functions also started deteriorating.

**Day 4 her liver function and kidney functions test further deteriorated and were as follows**

- S. Bb (Total) - 11.14 mg/dl
The presence of HELLP syndrome involves a rapid termination of pregnancy and the administration of corticosteroids does not improve maternal morbidity and mortality but may help raise the platelet count, thus decreasing the need for transfusion and shorten hospital stay.\(^5\)

**So to conclude HELLP syndrome**

- Symptoms/signs may be confusing
- Clinical presentation is unpredictable
- Aggressive supportive care required
- Significant cardiovascular outcome may ensue afterwards.\(^2\)

A decline in maternal morbidity and mortality associated with hypertensive disorders of pregnancy is in proper diagnosis and effective management of HELLP syndrome.

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