

## A Case Report on HELLP Syndrome

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### ABSTRACT

HELLP (Hemolysis, Elevated Liver enzymes, Low Platelet count) syndrome is a severe and rapidly progressing condition that requires distinct diagnostic considerations. The lack of classical symptoms and inability to differentiate the symptoms worsen the degree of disease progression. This report highlights Postpartum HELLP syndrome which developed two days after a preterm labor. After 48hours of birthing the patient developed troubling headache and epigastric pain which made her to seek medical attention. Substantial evidence of blood parameters corroborates HELLP syndrome. Appropriate and timely management rectified the progression and prevented deadly complications.

**Key words:** HELLP syndrome, post-partum, preeclampsia, Mississippi classification.

### INTRODUCTION

HELLP syndrome is a life-threatening complication in pregnancy which is linked to preeclampsia. Both conditions usually occur during the later stages of pregnancy or sometimes after childbirth. HELLP syndrome was named by Dr. Louis Weinstein in 1982 after its characteristics: **H** (hemolysis, which is the breaking down of red blood cells), **EL**

(elevated liver enzymes), **LP** (low platelet count).

The significant reports showed the incidence of this in most of the pregnancies. Out of them, 30 per cent cases are postpartum HELLP syndrome. In addition to, 20 per cent of these cases with no evidences of hypertension and 5- 15 per cent of pregnancies showed low levels of proteinuria or none. <sup>[1]</sup> Currently, the Mississippi – Triad class system is a dominant definition for diagnosing HELLP syndrome. It categorizes patients into various class based on nadir PLT counts anytime during the course of disease. The first two classes are correlated with hemolysis (LDH>600U/L) and elevated AST (>70U/L) whereas, class 3 demands only LDH>600 U/L and AST >40U/L despite specific PLT count. Moreover, class 3 HELLP syndrome is considered as clinically significant progression stage. <sup>[2]</sup>

Higher maternal mortality has been linked to HELLP. Post-partum associated cerebral hemorrhage or strokes are most contributing factors for death. In women with post- partum HELLP syndrome, risk of renal failure and pulmonary edema is significantly higher compared to those with antenatal onset.

### Mississippi classification of HELLP syndrome

	Class1 (severe)	Class2 (moderate)	Class 3 (mild)
Platelets	≤50,000/ μL	50,000 100,000/μ	100,000-150,000/μL
AST or ALT	≥70 IU/L	≥70 IU/L	≥40 IU/L
LDH	≥600 IU/L	≥600 IU/L	≥600 IU/L

## **CASE REPORT**

A 20-year-old female of late preterm was admitted in our hospital with complaints of headache for past 2 days. Her blood pressure was 130/100 mmHg. She had a history of pre-eclampsia and was on treatment with Labetalol 100mg. Soon after the admission she had natural labour with episiotomy and delivered alive girl baby. Vaginal examination showed wound gaping and foul-smelling discharge. Patient was given with intravenous Ceftriaxone 1gm and metronidazole 500 mg twice a day for 5 days as antibiotic prophylaxis and vaginal douching was done. After two days of labour patient had complaints of headache, epigastric pain, fatigue and nausea, which give a suspicion for HELLP syndrome. In a view of HELLP syndrome repeated investigation was sent which give out a haemoglobin levels 7.2 g/dl, red blood cells  $2.34 \times 10^{12}/L$ , platelets count  $126 \times 10^9$ . On the other hand, the patient had elevated liver enzymes aspartate aminotransferase 97 IU/L, alanine aminotransferase 41 IU/L. patient had decreased serum protein levels of 5.1 mg/dl. Urine analysis showed trace albumin and protein (+). The patient was given with one pint of packed cells and intravenous fluids.

## **DISCUSSION**

HELLP syndrome is thought to be a severe form of preeclampsia comprising hemolysis, increased concentration of liver enzymes and thrombocytopenia. Even though, exact pathogenesis involved in this is not known, expert attributed this as hepatic endothelial dysfunction, PLT aggravations and hepatocellular necrosis and death. The clinical manifestation of disease includes epigastric pain, upper abdominal tenderness, proteinuria, jaundice, nausea vomiting. Also, post-partum HELLP syndrome followed by preeclampsia could cause an elevated blood pressure. Under, Mississippi triad system the patient has been

classified as Mississippi class three which was developed to categorize patient based on the severity of disease. Here, the patient had increased systemic hypertension followed by elevated liver enzyme and hemolysis.<sup>[3]</sup>

Management of BP with safer anti-hypertensive such as Labetalol is should be necessary to halt cerebrovascular event. Furthermore, prophylactic use of iv bolus magnesium sulphate 4g prevent the seizure episodes. Intravenous fluid and blood products have been given to correct anemia and thrombocytopenia.

Fortunately, close surveillance of mother and appropriate pharmacological management hastens recovery and hospital discharge.

## **CONCLUSION**

The paramount management for postpartum HELLP is the timely diagnosis of disease and prophylactic treatment to prevent complication. In our case the patient was well treated and prevented from further threats of the disease. The patient was made cognizant about the relapse of events or the disease during subsequent pregnancy.

## **REFERENCE**

1. Rath W, Faridi A, Dudenhausen JW, HELLP Syndrome. "Journal Of Perinatal Medicine" 2000; 28(4): 249-60.
2. Kjell Haram, Einar Svendsen, Ulrich Abildgaard, The HELLP Syndrome: clinical issues and Management. A Review, "BMC Pregnancy Childbirth" 2009; 9:8.
3. K W Patterson, D P O'Toole, HELLP syndrome: A Case Report with Guidelines for Diagnosis and Management, "British Journal Of Anaesthesia", Volume 66, Issue 4, 1991; Pages 513-515

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