

A CASE REPORT OF HELLP SYNDROME TREATED WITH INTRAVENOUS STEROIDS

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Abstract- HELLP is an acronym which refers to the triad of Haemolysis with a microangiopathic blood smear, Elevated Liver enzymes and a Low Platelet count. HELLP syndrome represents Hypertensive disorders in pregnancy ¹. We described a 26 years old female patient with pre eclampsia and developed HELLP syndrome and showed good response on treating with steroids, anti hypertensive.

Key Words- HELLP Syndrome (Haemolysis, Elevated Liver enzymes and a Low Platelet count), Pre-eclampsia, Steroids

INTRODUCTION

HELLP syndrome usually develops before the 37th week of pregnancy but can occur shortly after delivery. many women are diagnosed with pre-eclampsia beforehand. HELLP syndrome affects 10-20% of pre-eclampsia patients and is a complication in 0.5-0.9% of all pregnancies. Although the associations between hemolysis, low platelets and liver dysfunction with hypertensive disorders of pregnancy was known since 1954, the term HELLP syndrome was first coined in 1982 by Weinstein et al. HELLP syndrome thought to be severe form of pre-eclamptic liver dysfunction but it can occur in normotensive patients as well. Most common clinical symptoms in HELLP Syndrome are as follows ²:

- Malaise
- Nausea and vomiting
- Edema and secondary weight gain
- Epigastric or right upper quadrant pain
- Dyspnea (if pulmonary edema present)

The exact pathophysiology is not known but similar to preeclampsia. It is thought to be secondary to endothelial dysfunction and thrombotic microangiopathy. Diagnosis is done with:

1. Hemolysis: Serum lactate dehydrogenase (LDH) >600 u/l Characteristic peripheral smear

2. Hyperbilirubinemia : Indirect hyperbilirubinemia

2. Elevated liver enzymes:

Serum aspartate aminotransferase >70 u/l

Low platelets (<100*10⁹/l).

Majority of patients with HELLP syndrome present in 3rd trimester, but up to 1/4th of these patients can present only in immediate postpartum period. antenatal pre-eclampsia is known to occur in most of these patients with postpartum presentation

PRESENTATION

A 26 year old hindu female patient admitted with chief complaint of stretching of limbs during her postpartum period- sudden onset associated with uprolling of eyeballs, frothing from mouth since 6 hours. Patient was delivered at dhangadhra on 4/1/23 and presented at C.U.SHAH MEDICAL COLLEGE AND HOSPITAL with 1st episode of convulsion. Obstetric history

Gravida 3,Para 2,Abortion 0.History of 2 normal full term vaginal delivery in past. No past history of hypertension,diabetes or any disease.

On general examination patient was conscious and oriented to time,place and person. Patient's pulse were 106/min,blood pressure 176/88mmhg .Pallor was noted . no icterus , cynosis , clubbing , pedal edema , neck rigidity was not present .

On systemic examination:

Patient's respiratory system,cardiovascular system,Gastro intestinal systems were normal.

INVESTIGATIONS:

Investigations	4/1/2023	5/1/2023	6/1/2023	7/1/2023	9/1/2023	11/1/2023
Haemoglobin(g/dl)	10.70	8.70	8.50	8.10	7.30	8.80
Total Count(/cumm)	18,100	13,300	15,700	18,000	19,100	12,100
Platelet count(/cumm)	1,54,000	17,000	40,000	80,000	96,000	2,38,000
Alanine transaminase(SGPT) (u/l)	124.30	132.90	208.30	70.80	67.40	
Aspartate transaminase(SGOT) (u/l)		166.15				
Serum Bilirubin(mg/dl)	1.35	17.19		4.78	1.62	
Direct bilirubin(mg/dl)	0.30	12.37		4.19	1.40	
Indirect bilirubin(mg/dl)	1.05	4.82		0.59	0.22	
Serum Creatine(mg/dl)	0.66	1.87		0.87		
Serum Lactate Dehydrogenase		1361.2				

Patient's other investigations were:

Uric Acid :6.41

Alkaline Phosphatase :110.5->202.2

Total Protein : 6.28

Albumin : 2.53

Globulin : 3.75

A/G Ratio : 0.67

Random Blood Sugar:90

Bleeding Time :2min 20 Sec

Clotting Time :4 Min 30 Sec

Sodium 141.5

Potassium 4.43

Chlorides 105.66

Blood Group Ab Positive

Pt With Inr : 15.0 / 1.01

Aptt : 28.1

Reticuloctye Count : 8.0%

Hiv / Hbsag / Hcv : Negative

Urine Protein :+++

Peripheral Smear Showed Leukocytosis, Anisocytosis, Microcytic, Hypochromic , Target Cells , Polychromic Cells Present.

TREATMENT:

Patient was transferred to ICU and Patient was given Magnesium sulphate regimen for eclampsia and Anti epileptic Levitracetam in injectable form.For dcreased platelet count and to prevent bleeding patient was given platelet transfusions.Patient was treated with Antihypertensive and intravenous Steroids and it showed a great response with decrease in Liver enzymes,bilirubin.Patient did not required Haemodialysis as urine output was maintained throughout the course of admission.Patient was also transfused with Packed Cell Volume for anemia.After 7 days patients was discharged with normal invesigations,controlled blood pressure on oral antihypertensive and antiepileptics.

DISCUSSION:

HELLP Syndrome should be diagnosed early and it is more commonly associated with Pre eclampsia.Patient should receive Magnesium Sulphate as prophylaxis to prevent seizure.AKI is associated with HELLP Syndrome complicating 7-15% cases compared to pre eclampsia³. HELLP Syndrome may confused with Renal Thrombotic Microangiopathies which include TTP and

Atypical HUS and Acute Fatty Liver of pregnancy. It should be differentiated from all the above mentioned condition on the basis of Hypertension, Renal Insufficiency, Onset of disease, Platelet count, Liver function Tests⁵. Steroids therapy in HELLP syndrome is controversial. Steroids can alter the intravascular endothelial injury and prevent further hepatocyte death and platelet activation. In our patient we used Intravenous Steroids (IV Dexamethasone 10 mg 6 hrly for 2 doses then 6 mg 6 hrly for 2 doses)⁴. Delivery either vaginal or cesarian section is indicated if HELLP syndrome occurs close to 34 weeks gestation. Patient should receive blood transfusion, platelets if there is associated bleeding.

CONCLUSION:

Our case describes how HELLP Syndrome may occur from an uneventful pregnancy to multiorgan failure within hours despite delivery of the fetus with full recovery in 7 to 10 days. Our patient showed good response to steroids so steroids can be considered in management of HELLP Syndrome with Anti hypertensive, Magnesium Sulphate, Anti epileptics, Blood products.

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