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HELLP SYNDROME AS A MASQUERADE FOR LEPTOSPIROSIS WITHOUT FEVER IN PREGNANCY : A CASE REPORT.

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INTRODUCTION: Although leptospirosis is the commonest zoonosis infection, its rarely reported in pregnant ladies[1,2]. Sparse case reports available have reported the possibility of leptospirosis causing pre-eclampsia or HELLP syndrome, even in afebrile patients[3,4]. In view of the potential serious complications and the myriads of manifestations caused by leptospirosis, this case report is hereby to highlight the importance of considering Leptospirosis as a possible cause for diagnosis while treating pregnant ladies with HELLP syndrome manifestation, even though patients do not have fever.

CASE ILLUSTRATION: A 26 year-old lady, who was 19 weeks and 5 days pregnant, presented with complains of nausea, vomiting and epigastric pain. She did not have headache, dizziness, visual changes, fever, abnormal movement or seizure. Her Blood Pressure was noticed to be high (systolic 197/ diastolic 110), with pulse rate of 90-110 beats per minute. Noted also there were protein (1+) and blood (2+) in her urine. Thus, she was treated as pre-eclampsia initially. She was afebrile, with no abnormality detected on clinical examination, except having BMI of 37. Noted her platelet counts to be low (49,000/uL), TWC 13,000/uL, Hb 11.8g/dL. Her APTT was prolonged (82.6 seconds). Transaminitis was also detected (ALT 242 U/L, AST 234 U/L), Total bilirubin was 34.8 umol/L, with indirect bilirubin being dominant (28.3 umol/L). LDH was elevated (553 U/L). Reticulocyte count was raised (6.2%). FBP showed signs of haemolysis on RBC and reduced platelet count with no clumping seen. Echocardiography was done which showed ejection fraction of 62%, and no significant abnormality detected. CTPA ruled out pulmonary embolism. With these investigation results, HELLP syndrome was diagnosed due to the presence of haemolysis, elevated liver enzymes and low platelet count. Ultrasound abdomen was done to investigate for the cause of epigastric pain and transaminitis, which detected only minimal gallbladder sludge, with no collection, lesion or dilated biliary system seen. Ultrasound Doppler of Hepatobiliary system showed patent portal and hepatic veins. In view of no symptom improvement and worsening liver parameters, with no apparent treatable cause found, termination of pregnancy was planned after ruling out all other causes. Further tests were done, and found HIV, viral hepatitis, blood and urine cultures, BFMP plus TFT to be negative. However, Leptospira serology (IgM) turned out to be positive. Therefore, patient was treated as active leptospirosis infection with Ceftriaxone, completed for one week. Her blood results (LFT and TWC) started to improve after initiating on Ceftriaxone. However, patient still had miscarriage a day after the completion of Ceftriaxone.

DISCUSSION: HELLP syndrome is a clinical manifestation of haemolysis, elevated liver enzymes and low platelet counts found in pregnant ladies[5]. Patients commonly present with headache, nausea, vomiting, abdominal pain, visual changes or even bleeding[5]. It is necessary to investigate for any underlying aetiology of HELLP syndrome, as some of the causes are treatable, rather than to subject patients for termination of pregnancy promptly[3,4]. For instance, Leptospirosis was detected in this patient, as the cause of her HELLP syndrome manifestation. As Leptospirosis is endemic and prevalent in Asia countries like Malaysia, it is crucial to consider leptospirosis while treating pregnant patients with acute transaminitis or liver dysfunction, and thrombocytopenia[3,4]. More so in those patients who have risk factors such as having contact with animals, performing water recreational activities, staying in overcrowded places with poor sanitation, and residing in areas with heavy rainfall or floods[1,6]. Leptospirosis comes with various manifestations, ranging from asymptomatic to severe and potentially fatal form[1,4]. In severe cases, it can cause mortality up to 40%[6]. In pregnant women, this infection may be serious as it may lead to both maternal and fetal mortality and morbidity, which include organs dysfunction (liver, kidney and vascular), pulmonary haemorrhage, myocarditis, HELLP syndrome, pre-eclampsia, eclampsia, miscarriage, stillbirth and neonatal leptospirosis[1,4,7]. It requires high index of suspicion, as not many cases of leptospirosis infection in pregnancy were reported thus far in medical literature[1]. The predicament is made more difficult as leptospirosis could present in pregnant ladies with no fever, whether from history or observation during admission stay[2]. Not only this phenomenon is proven in this case report, but also in another case reported by Tong et al (2018) in Singapore, whereby an afebrile pregnant lady who also presented with HELLP syndrome and found out leptospirosis being its underlying aetiology. Therefore, being afebrile does not rule one out of the possibility of having leptospirosis infection in pregnant ladies.

CONCLUSION: As HELLP syndrome may cause rapid deterioration in pregnant patients, it is vital to look for the underlying treatable aetiology of it and initiate treatment as soon as possible. This case illustrated the possibility of leptospirosis infection being one of the potential causative factors for HELLP syndrome, and also worth to note that it can manifest without fever in pregnant ladies.

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