



Conservative treatment for hepatic subcapsular hematoma in HELLP syndrome: A case report

Tratamento conservador para hematoma subcapsular hepático em síndrome de HELLP: Um relato de caso

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ABSTRACT

HELLP syndrome is a serious condition defined by the presence of hemolysis, liver injury, and thrombocytopenia in pregnant women with preeclampsia. Such a condition can result in liver complications in less than 1% of cases, which, if not well managed, may result in the need for liver transplantation. This study aims to report the case of a 30-year-old patient, primiparous, with criteria for HELLP syndrome complicated with hepatic subcapsular hematoma, which was conducted by the General Surgery team with conservative treatment through the correction of metabolic disorders, serial imaging exams and follow-up by the surgical team, evolving with hospital discharge without clinical repercussions. The exposure of the case is relevant since it allowed minor invasive interventions in a serious and rare complication.

Keywords: HELLP syndrome, Liver, Conservative treatment.

1 INTRODUCTION

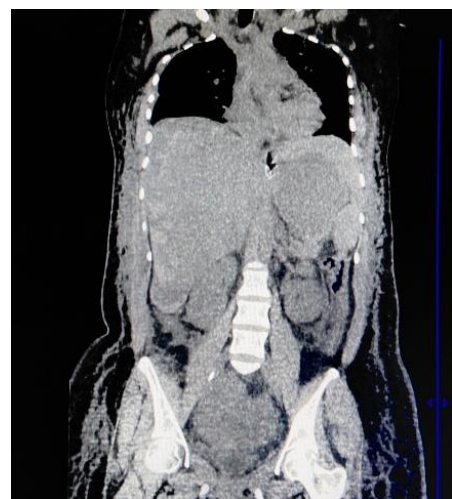
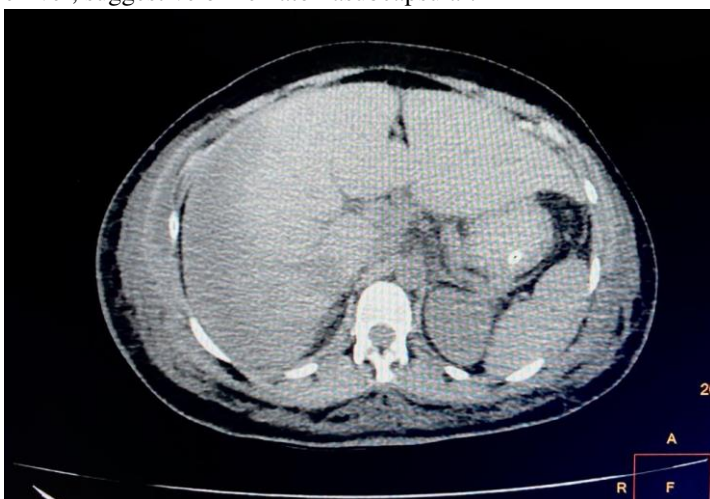
HELLP syndrome is a serious, infrequent condition defined by the presence of hemolysis, liver damage and thrombocytopenia in pregnant women with pre-eclampsia, and may occur in up to 0.2% of pregnancies. This condition can result in liver complications in less than 1% of cases, leading to infarction, hematomas, and ruptures. The patient may progress with pain in the right upper quadrant of the abdomen and fever, but may be asymptomatic. Diagnosis is made by computed tomography (CT) and treatment involves termination of pregnancy and management of complications. This study aims to report the case of a patient with criteria for HELLP syndrome

complicated with hepatic subcapsular hematoma, being conducted by the General Surgery team with conservative treatment.

2 CASE REPORT

Patient, 30 years old, primiparous, with gestational age of 28 weeks and 3 days, diagnosed with preeclampsia due to uncontrolled blood pressure and 24-hour proteinuria of 1968 mg. Admitted to a high-risk obstetric service, presenting pain in the upper abdomen. Laboratory tests revealed platelets in 82,000/mm³, GOT 89/L, TGP 90/L and LDH 348 U/L. Sulfation was initiated and emergency cesarean section indicated, without interurrences. In the ICU, the patient developed acute renal failure, distension and abdominal pain that radiated to the right shoulder, and the opinion of the General Surgery was requested. CT scan of the total abdomen revealed an extensive area of hypodensity affecting a large part of the right hepatic lobe, and the possibility of hepatic subcapsular hematoma induced by HELLP syndrome was discussed with a radiologist. Hemodynamic stability enabled conservative management with serial follow-up. At admission, the patient developed the need for orotracheal intubation, relief paracentesis and thoracentesis. After 21 days, he is discharged from General Surgery due to reduction of liver function markers and subcapsular hematoma on serial CT with chronification, without volume increase, persisting without indication of surgical approach. He is discharged from the hospital in the next 9 days. Returns after 3 months in consultation at the contraceptive outpatient clinic, without complaints.

Images 1 and 2. Tomography of the abdomen with hepatomegaly and presence of subcapsular hypodense imaging in the liver, suggestive of hematomasubcapsular.





3 DISCUSSION

HELLP syndrome is a rare pregnancy-related condition characterized by hemolysis, elevated markers of liver injury, and low platelet counts, which occurs in patients with preeclampsia that is difficult to manage clinically. Hepatic subcapsular hematoma (MSM) affects 0.9 to 1.6% of patients with HELLP syndrome. It is suggested that vasoconstriction may be an important factor in pathogenesis and may lead to liver complications such as hematoma, infarction, and rupture. This is because the syndrome can cause damage to the blood vessels of the liver, leading to disruption of blood flow and death of liver cells.

The symptomatology is varied and depends on the changes present in the picture. In cases of severe thrombocytopenia due to liver failure, the patient may present with gingival bleeding, hematuria, petechiae, hemorrhages and ecchymoses, and physical examination and serial laboratory tests are important for early diagnosis and management. Significant pain in the epigastric region, associated with nausea and vomiting, may be related to distension of the hepatic parenchyma, and suggest complications. The formation of MSM can arise in the second or third trimester of pregnancy, but are usually diagnosed only in the postpartum period.

The diagnosis of MSM needs to be fast and accessible, due to the severity and mortality rate involved. Total abdominal CT is the most sensitive method for the diagnosis of hepatic hematoma and for the search for hemorrhagic complications, usually appearing as well-defined wedge-shaped hypodense lesions with no mass effect on adjacent structures. The use of abdominal ultrasound in cases of clinical suspicion of rupture also contributes to the management of cases in unstable patients.

The treatment of MSM is not consensual, and conservative treatment is chosen in most hemodynamically stable cases, requiring ICU admission, blood transfusions, correction of coagulopathies and other disorders. MSM may progress to spontaneous rupture and hypovolemic shock. The suspicion and early diagnosis of liver rupture is important for the patient's prognosis, requiring emergency surgery and damage control. When rupture occurs, endovascular approaches may be necessary, or even liver transplantation, and serial follow-up by the care team is essential.



REFERENCES

- McCormick, P. A., Higgins, M., McCormick, C. A., Nolan, N. & Docherty, J. R. Hepatic infarction, hematoma, and rupture in HELLP syndrome: support for a vasospastic hypothesis. *J. Matern.-Fetal Neonatal Med. Off. J. Eur. Assoc. Perinat. Med. Fed. Asia Ocean. Perinat. Soc. Int. Soc. Perinat. Obstet.* 35, 7942–7947 (2022).
- Guo, Q. et al. Hepatic infarction induced by HELLP syndrome: a case report and review of the literature. *BMC Pregnancy Childbirth* 18, 191 (2018).
- El Allani, L., Benlamkaddem, S., Berdai, M. A. & Harandou, M. A case of massive hepatic infarction in severe preeclampsia as part of the HELLP syndrome. *Pan Afr. Med. J.* 36, 78 (2020).
- O'Brien JM, Barton JR. Controversies with the diagnosis and management of HELLP syndrome. *Clin Obstet Gynecol* 2005;48:460–77. <https://doi.org/10.1097/01.grf.0000160309.73197.35>.
- Aldemir M, Baç B, Taçyildiz I, Yağmur Y, Keleş C. Spontaneous liver hematoma and a hepatic rupture in HELLP syndrome: report of two cases. *Surg Today* 2002;32:450–3. <https://doi.org/10.1007/s005950200074>.
- Ditisheim A, Sibai BM. Diagnosis and Management of HELLP Syndrome Complicated by Liver Hematoma. *Clin Obstet Gynecol* 2017;60:190–7. <https://doi.org/10.1097/GRF.0000000000000253>.
- Ghorbanpour M, Makarchian HR, Yousefi B, Taghipour M. Conservative Management of Postpartum HELLP Syndrome and Intraparenchymal Liver Hematoma; A Case Report. *Bull Emerg Trauma* 2019;7:196–8. <https://doi.org/10.29252/beat-070218>.