

# Postpartum Hepatic Infarction in Antiphospholipid Syndrome Patients

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## Case Report

- 31-year-old woman with a complicated past medical history of Systemic Lupus Erythematosus (SLE) and Antiphospholipid Syndrome (APS) anticoagulated with warfarin.
- When she became pregnant, warfarin was discontinued and she was managed with a low molecular weight heparin (LMWH).
- She was continued on LMWH post-partum, but had challenges taking it consistently.
- Presented to the hospital post-partum on several occasions with acute right upper quadrant pain.
- CT imaging confirmed several hepatic infarcts
- She was treated with steroids, fondaparinux, and plaquenil.

## Background

- APS is an autoimmune disease that produces antiphospholipid antibodies which cause thrombosis
- Treatment in pregnant women utilizes a combination of LMWH and low dose Aspirin.
- Long-term anticoagulants should not be restarted until after delivery<sup>2</sup>

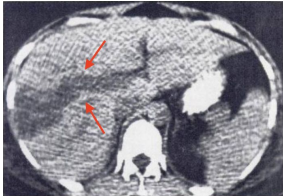


Figure 1: CT of liver shows well defined, wedge-shaped infarct in periphery<sup>5</sup>

## Postpartum Management of APS

- Current guidelines recommend prophylactic anticoagulant therapy for 6 weeks postpartum.
- Increased risk for thrombosis for up to 12 weeks after delivery, indicating the need to consider longer prophylactic anticoagulant therapy.<sup>1</sup>
- Risk is increased in patients with previous thrombosis history, an inherited primary hypercoagulable state, or other high-risk factors.<sup>1</sup>
- APS can lead to thromboses in the arteries or veins of the brain, heart, liver, lungs, or limbs, causing stroke, myocardial infarction, pulmonary embolism, or hepatic infarction, if untreated.<sup>2</sup>
- Catastrophic APS, which is characterized by multiple, simultaneous small-vessel thromboses and could lead to multiorgan failure is a rare but life-threatening complication of APS in pregnancy.<sup>3</sup>

## Clinical Presentation of Hepatic Infarcts

- Postpartum APS patients' hypercoagulable state puts them at increased risk for both hepatic infarcts and HELLP Syndrome.
- Hepatic infarcts and HELLP Syndrome have similar clinical presentations and can best be distinguished with labs and imaging.
- Hepatic infarcts in postpartum patients with APS likely occur in the setting of HELLP syndrome.<sup>3</sup>
- However, HELLP Syndrome in postpartum APS patients does not necessarily indicate the presence of hepatic infarcts.<sup>3</sup>

## Discussion

- This case demonstrates the rare, but life-threatening risk of postpartum hepatic infarction in APS patients.
- Hepatic infarcts rarely occur due to the dual blood supply of the liver.
- The diagnosis of hepatic infarction can be difficult as it may present similarly to HELLP.
- Proper postpartum management and compliance with anticoagulation medications are essential to mitigating risk.
- Providers may face challenges in diagnosing hepatic infarction as it could mimic other diseases.

## References

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**Table 1. Differentiating Hepatic Infarcts and HELLP Syndrome**

	Hepatic Infarct	HELLP Syndrome
Clinical Presentation	Epigastric or RUQ pain <sup>3,4</sup> Nausea and vomiting <sup>3,4</sup>	
Diagnostic Features	<ol style="list-style-type: none"> <li>1. Elevated liver enzymes<sup>3</sup></li> <li>2. Imaging (CT or T1/T2 weighted MRI) revealing circumscribed, wedge shaped areas of infarction in periphery of liver<sup>3</sup></li> </ol>	<ol style="list-style-type: none"> <li>1. Hemolysis (abnormal blood smear, elevated LDH)</li> <li>2. Elevated liver enzymes<sup>4</sup></li> <li>3. Low platelet count<sup>4</sup></li> </ol>