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Case Report

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Severe Pre-eclampsia Complicated by Acute Pancreatitis: A Case Report

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Abstract

Acute pancreatitis, while rare, can be a severe complication of gravidic hypertension, particularly in the third trimester or immediate postpartum period. Common causes include biliary tract lithiasis and dyslipidemia, with gravidic hypertension being a rare contributing factor. We present a case of acute pancreatitis following severe pre-eclampsia in a 31-year-old primiparous woman, who underwent an emergency caesarean section due to severe pre-eclampsia, complicated by a retroplacental hematoma and fetal death in utero. Three days postpartum, the patient developed abdominal pain, which led to the diagnosis of stage C acute pancreatitis confirmed by CT scan. Biliary lithiasis was ruled out via ultrasound. The patient's condition improved with conservative treatment, and she was discharged after stabilization.

Keywords: Acute pancreatitis, pre-eclampsia, pregnancy

Introduction

Acute pancreatitis during pregnancy is a rare but potentially serious condition, most often occurring in the third trimester or the immediate postpartum period. It is commonly caused by biliary tract issues and dyslipidemia. Gravidic hypertension has been seldom associated with acute pancreatitis. This report highlights a case of acute pancreatitis complicating severe pre-eclampsia.

Case Report

A 31-year-old primigravida with no notable medical history, no toxic habits, and no medications was admitted at 31 weeks of gestation for management of severe pre-eclampsia complicated by retroplacental hematoma and intrauterine fetal demise. Upon admission, she presented with fever, generalized pallor, blood pressure of 90/50 mmHg, tachycardia (130 bpm), positive albuminuria, and abdominal contracture. The laboratory findings revealed severe anemia (hemoglobin

6.2 g/dL), thrombocytopenia (33,000/mm^3), and abnormal coagulation tests. Hepatic tests showed elevated LDH (1023 IU/L) and ASAT (70 IU/L), but no cholestasis.

An emergency cesarean section was performed under general anesthesia due to maternal instability. The placenta revealed a hematoma occupying 2/3 of its surface. Postoperatively, the patient was transferred to the intensive care unit for hemodynamic stabilization, with blood pressure controlled using nicardipine.

Three days postpartum, the patient developed sudden, severe epigastric pain radiating to the back, accompanied by vomiting. Abdominal examination showed mild distension and localized tenderness in the epigastric region. Laboratory tests revealed elevated lipase (880 U/L) and CRP (73 mg/L). An abdominal CT scan confirmed stage C acute pancreatitis. An abdominal ultrasound ruled out gallstones, showing a distended, non-lithiasic gallbladder with normal bile ducts. Lipid profile was normal, and a diagnosis of acute pancreatitis complicating severe pre-eclampsia was established.

The patient was treated conservatively with rehydration, pain management, injectable PPIs, and a low-fat diet. Her condition improved clinically and biochemically, and she was discharged on postoperative day 10.

The patient provided informed consent for the publication of this case report, and their anonymity has been preserved.

Discussion

Pre-eclampsia is a disorder characterized by endothelial dysfunction and increased vascular permeability, which can lead to systemic complications, including gastrointestinal issues like acute pancreatitis. The pathophysiology of pancreatitis in the context of pre-eclampsia is not fully understood but may involve vasculitis, micro-thrombi, and intravascular coagulation. [1].

Acute pancreatitis is a rare complication during pregnancy, occurring in approximately 1 in 1000 to 3000 pregnancies [2]. Biliary disease is the leading cause, accounting for 67–100% of cases, while hyperlipidemia and gestational hypertension are less commonly implicated [3,4,5]. Our review of the literature revealed only a few reported cases of acute pancreatitis associated with preeclampsia, highlighting its rarity. However, a recent study demonstrated a significant association between pancreatitis and preeclampsia, particularly in severe cases (odds ratio 7.85) [6].

Diagnosis is confirmed by elevated lipase levels and imaging studies showing pancreatic inflammation. Prompt management is critical to avoid severe complications.

Management of acute pancreatitis in pregnancy is primarily supportive, including fasting, fluid resuscitation, and pain control. Surgical interventions, such as cholecystectomy or sphincterotomy, are reserved for specific causes like biliary pancreatitis. The role of antibiotics remains uncertain and is only recommended in cases of complications like infected pancreatic necrosis.

In severe cases, especially with worsening maternal or fetal status, delivery should be considered. In our case, conservative management was successful, and the patient showed favorable outcomes, which aligns with other reports of edematous pancreatitis associated with pre-eclampsia.

These findings underscore the importance of maintaining a high index of suspicion for inflammatory conditions like pancreatitis in patients presenting with disproportionate postpartum abdominal pain, with or without a prior diagnosis of preeclampsia. Further prospective studies are needed to better understand the relationship between preeclampsia and acute pancreatitis and to refine management strategies for this rare but serious complication.

Conclusion

Acute pancreatitis should be considered in any pregnant woman presenting with sudden, severe abdominal pain, especially in the third trimester. Although it is a rare complication, its recognition is essential, particularly in the context of pre-eclampsia. Early diagnosis and appropriate supportive care usually lead to favorable maternal outcomes, although fetal prognosis may be compromised in cases of fetal distress or intrauterine fetal demise.

Disclosure

The authors declare that there is no conflict of interest regarding the publication of this manuscript. No financial relationships with any companies or organizations that may have a financial interest in the content of this manuscript exist.

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