

ACUTE PANCREATITIS IN PREGNANCY: CHALLENGES

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ABSTRACT

We report a case of a 24 years old lady at 32 weeks 5 days of gestation, who was referred to our hospital with severe pain the upper abdomen and radiating to the back, associated with vomiting with history of raised blood pressure. After investigations she was diagnosed with acute pancreatitis with non severe pre eclampsia. She was managed by multidisciplinary team approach and improved.

KEYWORDS:- Acute Pancreatitis, Preeclampsia.

INTRODUCTION

Acute pancreatitis is found uncommonly in pregnancy with an incidence of 1 in 1000 to 1 in 10,000.1 Majority of cases have been reported in late third trimester and postpartum period. Early diagnosis is often missed due to confounding by similar features of pregnancy. In the present case report, the patient reported symptoms from early second trimester, which were missed. Diagnosis of pancreatitis was made at 32 weeks gestation. The management and challenges involved are discussed.

CASE REPORT

A 24 years old lady, G2A1 was referred to us with a diagnosis of non severe pre-eclampsia and acute pancreatitis at 32 weeks pregnancy. She complained of chronic pain in upper abdomen off and on since 3rd month of pregnancy. The pain had gradually increased over time, till for the past few days, it was agonising, non remitting and constantly present. The ultrasonography report suggested acute pancreatitis with gall bladder sludge (figure-1). She was taking oral labetalol (100mg) twice a day.

The patient was afebrile, conscious, oriented and in severe pain. She had tachycardia and increased respiratory rate. Her blood pressure was 140/80 mm Hg with oxygen saturation 98%. Abdominal examination showed tenderness in epigastrium. Uterus was corresponding to dates and fetal heart was normal. Table 1 shows investigation profile. Diagnosis of acute pancreatitis was confirmed and the case was managed conservatively. Initial response was good but by 6th day, the patient had continuous high grade fever, tachypnea and tachycardia. Through Chest examination revealed widespread crackles bilaterally and pleural

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Fig. 1: ultrasound images of the patient showing gallbladder sludge

effusion was confirmed on ultrasound thorax and chest X ray. Difficulty in breathing was progressive and increasing requirement of oxygen support despite conservative management prompted the decision for urgent termination of pregnancy by cesarean section (CS). A live male baby was delivered by lower segment cesarean section. Anterior abdominal wall showed saponification but lesser sac revealed no necrosis or debris (figure-2). Placental membranes sent for culture reported significant growth of *Proteus vulgaris*.

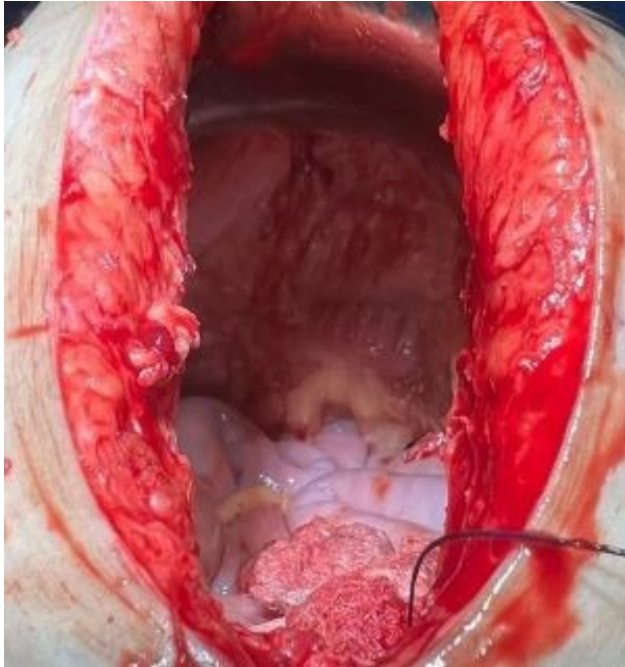


Fig. 2: showing saponification on anterior abdominal wall

Post operative period showed dramatic clinical and biochemical improvement for the mother. The baby had raised counts, CRP and was put on injectable antibiotics and oxygen support. He succumbed on 10th day, to sepsis and intraventricular haemorrhage. Pre-operatively, magnesium sulphate and dexamethasone had been given to mother for neuroprotection and lung maturation of the baby.

DISCUSSION

Acute pancreatitis in pregnancy is mostly seen associated with gallstone disease or cases of hypertriglyceridemia.^{1,3,4} Gallstone disease including gall stone and gall bladder sludge accounts for more than 70% of cases.² The hormonal milieu of pregnancy is purported to precipitate gallstone disease. Triglyceride levels rise 2-4 times during pregnancy by third trimester. This rise may reach >1000mg/dl in women with altered lipoprotein lipase activity, predisposing to pancreatitis.⁵ Causative factors of lesser importance include pre-eclampsia, HELLP syndrome, diabetes mellitus, alcohol intake, trauma to pancreatic duct and drug induced.^{6,7} Multiple factors were present in our patient, including gall bladder sludge, pre-eclampsia and hypertriglyceridemia.

The most common clinical presentation of acute pancreatitis is abdominal pain (89.47%) associated with vomiting (68.42%).⁸ Serum amylase and lipase are helpful biochemical markers in diagnosing acute pancreatitis. Serum amylase concentration peaks in the first 24 hours and falls to baseline in 3-5 days. In contrast, serum lipase concentration is elevated upto 2 weeks, which is a more sensitive and specific diagnostic test. Diagnosis of acute pancreatitis in our case was established mainly by ultrasound findings, raised biochemical markers and clinical presentation.

Ultrasound scan is a safe and easily available but it has low diagnostic value for the acute pancreatitis. other alternative radiological investigation is magnetic

Parameter	On the day of admission	Day 6 of admission	1 day prior to caesarean	Day 1 post caesarean	1 month post caesarean
Haemoglobin (gm%)	9.9	9.6	8.7	7.4	10
TLC (cells/cumm)	4400	15800	16400	20000	9200
S. Bilirubin (mg/dl)	1.6	0.8	0.8	0.7	0.6
SGPT (U/L)	150	19	13	12	37
SGOT (U/L)	253	26	28	35	42
S. Amylase(U/L)	723	115	232	115	64
S. Lipase(U/L)	1888	578	1861	579	336
CRP (mg/l)	>90	>90	>90	>90	
S.Cholesterol(mg/dl)	209	-	-	-	262
S.Triglyceride(mg/dl)	323	-	-	-	412
PT	13.2	-	24.4	14.2	-
INR	1.16	-	2.16	1.25	-

Table 1: Laboratory Investigations

resonance cholangiopancreatography (MRCP) without contrast medium which has got over 90% sensitivity without exposing the mother and fetus to ionizing radiation. Endoscopic ultrasound has higher sensitivity over the MRCP but it requires sedation (9,10).

The initial management in pregnancy remains conservative including maintenance of fluid electrolyte balance, analgesia, antibiotics. Cessation of the oral feeding is done to suppress the exocrine function of pancreas, thereby prevent the autodigestion of pancreas.11 Role of prophylactic antibiotics remains controversial in mild cases. In severe pancreatitis, antibiotic prophylaxis is given to prevent infection due to necrotic tissue and debris as a result of pancreatic necrosis. Obstetric management is influenced by gestational age, etiology and severity of disease. Our patient had drastic improvement in her clinical condition and biochemical markers after delivery of baby.

Prognosis depends on severity of diseases. Mild acute pancreatitis has got excellent prognosis with no adverse effects on mother or fetus. The prognosis of severe pancreatitis remains guarded. It is important to be cognisant of clinical features and keep a high suspicion for this diagnosis. Early diagnosis, use of appropriate testing technology and multidisciplinary team management can improve outcomes for both mothers and babies.

CONCLUSION

- Pancreatic origin of pain should be counted in the segment of differential diagnosis of any pregnant patient who presents with acute pain in upper abdomen, not responding to the usual treatment.
- Pancreatitis may present in early pregnancy with vague features of abdominal pain.
- Timely diagnosis, early treatment and prompt interventions can prevent maternal and fetal morbidity and mortality.

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