



Bearing the Burden: Unraveling the Complexity of Acute Pancreatitis in Pregnancy

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Abstract:

Introduction: Acute pancreatitis is a rare condition occurring during pregnancy. It occurs mainly in the third trimester or immediate postpartum. The incidence varies from 1 in 1000 to 10,000 pregnancies. The diagnosis and management of this condition is difficult during pregnancy because of atypical clinical symptomatology and limited possibilities of imaging and surgery during pregnancy. Acute pancreatitis can be managed medically, while surgery is mandatory in refractory cases.

Aim:

- a) To identify the cause and treatment strategies of acute pancreatitis.
- b) Maternal and Fetal outcome in Acute pancreatitis.

Methods: we report a series of 5 cases of acute pancreatitis in pregnancy. The diagnosis was based on clinical-biological clues: epigastric pain with strong elevation of lipasemia. Biliary etiology was confirmed in all patients initially by ultrasounds.

Results: out of 5 patients, 4 patients had benign pancreatitis of favorable evolution. The fifth patient presented with a clinically severe pancreatitis and developed systemic inflammatory response syndrome with multiple organ failure with maternal and fetal deaths. Treatment for all patients was mainly symptomatic (medical), followed by cholecystectomy after delivery.

Conclusion: Acute pancreatitis during pregnancy is a major differential to consider in pregnant women with emesis associated with typical or atypical abdominal pain. Its diagnosis is essentially based on elevated lipasemia and suggestive imaging. Management is mainly symptomatic, with subsequent cholecystectomy.

Key Words: Acute Pancreatitis; medical management; cholecystectomy.

Introduction

Acute pancreatitis is a rare condition occurring during pregnancy. It occurs mainly in the third trimester or immediate postpartum. The incidence varies from 1 in 1000 to 10,000 pregnancies. It is characterized by inflammation of the pancreas, which can cause severe abdominal pain, nausea, vomiting, and fever. The causes of acute pancreatitis during pregnancy can vary, but some common risk factors include gallstones, high levels of triglycerides in the blood, and alcohol consumption. Other less common causes include trauma, infections, and medications. The diagnosis and management of this condition is difficult during pregnancy because of atypical clinical symptomatology and limited possibilities of imaging and surgery during pregnancy. Acute pancreatitis can be managed medically, while surgery is mandatory in refractory cases.

Aim & Objectives

- a) To identify the cause and treatment strategies of acute pancreatitis.
- b) Maternal and Fetal outcome in Acute pancreatitis

Materials & methods:
This is a retrospective case series study. We report a series of 5 cases of acute pancreatitis in pregnancy. The diagnosis was based on clinical-biological clues: epigastric pain with strong elevation of lipase. Biliary etiology was confirmed in all patients initially by ultrasounds.

Cases

1) 26 year old G3P1L1A1 presented to us at 24 weeks +3 days of pregnancy with chief complaints of pain in the abdomen ; located in the epigastric region and bilious vomiting On examination her pulse rate was 100 beats /minute . Her Bp was 100/60 mmhg. on Per abdomen examination she corresponded to 24 weeks and tenderness was elicited at epigastric region. following admission her ultrasound whole abdomen was done which was suggestive of chronic calcific pancreatitis with gallbladder sludge and a single live intrauterine gestation corresponding to 25 weeks. Following this serum amylase and lipase were sent and following values were noted :S.LIPASE : 957 IU/L and S. AMYLASE : 109 IU/L.. medical gastroenterologist's opinion was taken and MRCP (Plain) was done which was suggestive of :

a) Mildly atrophic pancreas with multiple pancreatic intraductal calculi (largest measuring 1.4 x 3.0 cm) in distal body region.

b) Dilated pancreatic duct with minimal peripancreatic fat stranding-suggestive of subacute on chronic calcific pancreatitis.

Patient was conservatively managed with iv antibiotics and analgesics. The patient recovered in a week and was discharged with normal lipase and amylase values. She delivered at term Vaginally. Postnatal period was uneventful.

2) 22 year old Primigravida presented with chief complaints of abdominal pain and bilious vomiting. On examination her pulse rate was 120/minute and BP was 100/60 mmhg. on per abdomen examination she corresponded to 32 weeks and tenderness was elicited at epigastric region. Following this USG whole abdomen was done and serum lipase and amylase were sent. USG was suggestive of acute pancreatitis with minimal ascites and bilateral pleural effusion and cholelithiasis without the evidence of cholecystitis. Her serum amylase and lipase values were:

S. amylase: 812 IU/L

S. lipase: 6035 IU/L

The patient was started on conservative management with iv antibiotics, fluids and analgesics to which she did not respond. She underwent emergency LSCS 48 hours after admission. Both mother and baby recovered well. 6 months postpartum she underwent cholecystectomy.

3) 25 year old G3P1L1A1 presented at 33 weeks with chief complaints of abdominal pain and bilious vomiting. on examination her pulse rate was 110/minute and BP was 100/60 mmhg. on per abdomen examination she corresponded to 32 weeks and tenderness was elicited at epigastric region. following this USG whole abdomen was done which was suggestive of Bulky and edematous body and tail of pancreas and fluid in peripancreatic, perisplenic regions and anterior pararenal space on left side. Mild dilatation of main pancreatic duct in head and uncinate region. Gall bladder sludge +.

Serum lipase and amylase were sent. Her serum amylase and lipase values were :

S.amylase : 995 IU/L

S.lipase : 9959 IU/L

The patient was started on conservative management with iv antibiotics, fluids and analgesics to which she responded. She delivered vaginally at 37 weeks. Both mother and baby did well in the postnatal period.

4) 25 year old G3A2 presented at 30 weeks with chief complaints of abdominal pain and bilious vomiting. on examination her pulse rate was 100/minute and BP was 100/60 mmhg. on per abdomen examination she corresponded to 30 weeks and tenderness was elicited at epigastric region. Following this USG whole abdomen was done which was suggestive of acute pancreatitis with gallbladder sludge.

Serum lipase and amylase were sent. Her serum amylase and lipase values were :

S.amylase: 600 IU/L

S.lipase: 3059 IU/L

The patient was started on conservative management with iv antibiotics, fluids and analgesics to which she responded. She was delivered by LSCS at 38 weeks. Both mother and baby did well in the postnatal period.

5) 30 year old Primigravida presented at 22 weeks with chief complaints of abdominal pain and bilious vomiting. on examination her pulse rate was 130/minute and BP was 100/60 mmhg. on per abdomen examination she corresponded to 22 weeks and tenderness was elicited at epigastric region. following this USG whole abdomen was done which was suggestive of bulky pancreatic head with peripancreatic fluid collection. liver enlarged. GB sludge +.

Serum lipase and amylase were sent. Her serum amylase and lipase values were :

S. amylase :746 IU/L

S. lipase : 11059 IU/L

The patient was admitted in MICU. She was managed conservatively with antibiotics / iv fluids / oxygen support and analgesics. Her condition worsened after 1 week and she had intrauterine demise of fetus and the fetus was delivered vaginally.. After this the patient developed acute respiratory distress syndrome which was refractory to all measures of ventilation.

Repeat CT scan abdomen was done which showed necrotising pancreatitis involving > 70% of the pancreas. Following this she underwent laparotomy and resection of the necrotic pancreatic tissue.

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Post surgery patient worsened and developed septic shock along with multiorgan dysfunction and expired after 1 month of hospitalization.

Discussion

- Our case series has summarized 5 cases of Acute Pancreatitis in pregnancy. (1)
- Acute pancreatitis (AP) is a rare condition during pregnancy.
- Despite this rarity, Potential complications are doubled when compared to non-pregnant women.
- Acute pancreatitis occurs mainly during the third trimester (50%) or in the immediate postpartum period (38%). (5)
- Symptoms such as epigastric pain, nausea and/or vomiting, anorexia and fever are considered to be the most common.
- In our case series, all 5 patients presented with severe epigastric pain and vomiting.
- Increase in value of lipase upto 3 times is significant in diagnosing Acute pancreatitis.
- In all our cases the lipase value was raised upto 3 levels. (2,3)
- Biliary pancreatitis is the most common cause of AP (65-100%).
- In this small study of 5 patients; all women had cholelithiasis or biliary sludge.
- The most common diagnostic modality used amongst our patients was ultrasound and serum amylase and lipase.
- The management was conservative which mostly included adequate hydration, antibiotics, and analgesics. (4)
- Out of 5 patients 3 patients had term delivery (2 vaginal and 1 lscs) and one patient had preterm delivery due to compromise of mother and fetus.
- One patient in our case series developed complications like ARDS, IUD, MODS & DIC. she expired after one month of being in hospital.

Conclusion

- Acute Pancreatitis is a major differential to consider in pregnant patients who present with epigastric pain , emesis and fever in pregnancy.
- Management since the initial stage of disease is important(2)
- Maternal and fetal risks should be explained to the patient.

- The maternal and perinatal mortality is 11-37% in case of acute pancreatitis.
- Early diagnosis and treatment is of utmost importance
- Gallstones or hyperlipidemia seem to have a specific link with acute pancreatitis in pregnancy (3)
- Although acute pancreatitis is a rare complication of pregnancy, we present evidence that both maternal and fetal mortality can be minimized if appropriately treated(5)

References

1. Eddy JJ, Gideonsen MD, Song JY, et al. Pancreatitis in pregnancy. *J Obstet Gynecol.* 2008;112(5):1075–1081. doi: 10.1097/AOG.
2. Chen CP, Wang KG, Su TH, Yang YC. Acute pancreatitis in pregnancy. *Acta Obstet Gynecol Scand.* 1995 Sep;74(8):607-10. doi: 10.3109/00016349509013471. PMID: 7660765.
3. Swisher SG, Hunt KK, Schmit PJ, Hiyama DT, Bennion RS, Thompson JE. Management of pancreatitis complicating pregnancy. *Am Surg.* 1994 Oct;60(10):759-62. PMID: 7944038.
4. Legro RS, Laifer SA. First-trimester pancreatitis. Maternal and neonatal outcome. *J Reprod Med.* 1995 Oct;40(10):689-95. PMID: 8551468.
5. Hara T, Kanasaki H, Oride A, Ishihara T, Kyo S. A Case of Idiopathic Acute Pancreatitis in the First Trimester of Pregnancy. *Case Rep Obstet Gynecol.* 2015;2015:469527. doi: 10.1155/2015/469527. Epub 2015 Dec 30. PMID: 26843995; PMCID: PMC4710924.