DOI: 10.47799/pimr.1303.25.77

A Rare and Challenging Case of Acute Pancreatitis in Pregnancy - A Case Report

Gauri Abhishek Prabhu[1*], Sagarika Swamy[2], Anita Dalal[3], Shridevi Metgud[1]

[1]Associate Professor, Department of Obstetrics and Gynaecology, KAHER's Jawaharlal Nehru Medical College, Belagavi, Karnataka, India

[2]Junior Resident, Department of OBG, Jawaharlal Nehru Medical College, Belagavi, Karnataka, India

[3]Professor, Department of OBG, Jawaharlal Nehru Medical College, Belagavi, Karnataka, India

[*]*Corresponding Author:*
Gauri Abhishek Prabhu
E-MAIL: gaurikudchadkar@yahoo.com

Date of Submission: 30/10/2025 **Date of Review: 15/11/2025** **Date of Acceptance: 16/12/2025**

ABSTRACT

Acute pancreatitis during pregnancy is uncommon but potentially life-threatening for both mother and foetus. Acute exacerbation of pre-existing chronic pancreatitis during pregnancy is rarely reported and poses additional diagnostic and therapeutic challenges. A 30-year-old multiparous woman at 34 weeks of gestation presented with recurrent left upper abdominal pain radiating to the back and vomiting. She had a prior ultrasonographic diagnosis of chronic pancreatitis. Laboratory evaluation showed markedly elevated serum amylase (495 U/L) and serum lipase (789 U/L). Ultrasonography demonstrated dilatation of the main pancreatic duct with an intraductal calculus, consistent with acute on chronic pancreatitis. The patient was initially managed conservatively with bowel rest, intravenous fluids, analgesics, and close maternal–fetal monitoring, resulting in partial clinical and biochemical improvement. Considering persistent symptoms, advanced gestational age, and mechanical effects of the gravid uterus, a multidisciplinary team decided on planned caesarean delivery at 34 weeks and 6 days after antenatal corticosteroid administration. Both maternal and neonatal outcomes were favourable, with complete resolution of symptoms and normalization of pancreatic enzymes at follow-up. This case highlights the importance of individualized, multidisciplinary management of acute chronic pancreatitis in pregnancy. Conservative therapy remains the first-line approach, while timely delivery may be beneficial in selected late-gestation cases to optimize maternal recovery and fetal outcome.

KEYWORDS: Acute pancreatitis; Chronic pancreatitis; Pregnancy; Conservative management; Caesarean section

INTRODUCTION

Acute pancreatitis is an inflammatory disorder caused by premature activation of pancreatic digestive enzymes, leading to pancreatic autodigestion and systemic inflammatory response. During pregnancy, its reported incidence ranges from 1 in 1,000 to 1 in 5,000 pregnancies, making it an uncommon but clinically significant complication [1–3]. Most cases are attributed to gallstone disease or hypertriglyceridemia, while alcohol-related pancreatitis is less common in pregnant women [2, 4].

Although acute pancreatitis in pregnancy has been increasingly reported, acute exacerbation of underlying chronic pancreatitis remains rare, with limited published data guiding obstetric decision-making [4, 5]. Physiological changes of pregnancy, overlapping abdominal symptoms, and limitations on imaging modalities further complicate diagnosis and management [4–6]. We report a case of acute on chronic pancreatitis presenting in late pregnancy, emphasizing diagnostic considerations, multidisciplinary management, and rationale for planned early delivery.

CASE PRESENTATION

A 30-year-old woman, gravida 2 para 1 living 1, presented at 34 weeks and 4 days of gestation with left upper abdominal and loin pain radiating to the back. The pain had been intermittent for four months but had worsened significantly over the preceding 15 days. She reported one episode of non-projectile, yellowish vomiting eight days prior to admission. There was no history of fever, jaundice, urinary symptoms, or vaginal bleeding. Her

obstetric history was notable for a previous lower-segment caesarean section performed for placenta previa, with an otherwise uncomplicated postoperative course. Four months before the current admission, she had been evaluated for similar abdominal pain and diagnosed with chronic pancreatitis on ultrasonography. She had received alternative ayurvedic treatment without subsequent gastroenterology follow-up.

On examination, the patient was conscious, oriented, and hemodynamically stable. Her body mass index was 20 kg/m², pulse rate 96 beats/min, blood pressure 100/70 mmHg, respiratory rate 16 breaths/min, and temperature was normal. Abdominal examination revealed a uniformly distended abdomen with a gravid uterus corresponding to 34 weeks. Tenderness was present in the epigastrium and left hypochondrium. Costovertebral angle tenderness was absent bilaterally. Bowel sounds were diminished but audible, and there were no signs of peritoneal irritation.

Laboratory investigations showed a normal hemogram (white blood cell count 7,200/µL; haemoglobin 11.4 g/dL; platelet count 2.4 × 10^5/µL). Liver function tests were within normal limits (AST 28 IU/L, ALT 24 IU/L, alkaline phosphatase 65 IU/L, total bilirubin 0.6 mg/dL). Renal function tests were normal (serum creatinine 0.8 mg/dL, blood urea nitrogen 12 mg/dL). Serum electrolytes were within normal limits (sodium 138 mEq/L, potassium 4.2 mEq/L). Fasting blood glucose was 95 mg/dL, serum calcium 8.9 mg/dL, and lipid profile was normal (triglycerides 95 mg/dL).

Serum amylase was elevated to 495 U/L (reference range 25–125 U/L) and serum lipase to 789 U/L (reference range 13–60 U/L).

Obstetric ultrasonography revealed a single live intrauterine foetus at 34 weeks and 6 days with appropriate growth parameters (estimated fetal weight 2.1 kg), normal amniotic fluid volume, and no placental abnormalities. Abdominal ultrasonography demonstrated dilatation of the main pancreatic duct (approximately 6 mm), presence of an intraductal calculus, and mild pancreatic oedema without necrosis or peripancreatic collections, consistent with acute on chronic pancreatitis.

THERAPEUTIC INTERVENTION

The patient was admitted and managed conservatively with bowel rest, intravenous Ringer's lactate at 125 mL/hour, paracetamol for analgesia with opioids for breakthrough pain, and metoclopramide for nausea. Pancreatic enzyme supplementation was initiated, and blood glucose levels were monitored every four hours. Continuous cardiotocographic monitoring was performed.

By the third hospital day, the patient showed partial clinical improvement. Repeat laboratory investigations demonstrated a decline in pancreatic enzyme levels, with serum amylase decreasing to 320 U/L and serum lipase to 450 U/L, while renal and electrolyte parameters remained stable. Despite improvement, abdominal pain persisted intermittently.

DECISION-MAKING AND FOLLOW-UP

Given incomplete symptom resolution, advanced gestational age, and concern that the gravid uterus was contributing to ongoing pancreatic irritation, a multidisciplinary team involving obstetrics, maternal–fetal medicine, gastroenterology, anesthesia, and neonatology reviewed the case. Considering fetal maturity and potential maternal risks of continued pregnancy, planned delivery was recommended after informed consent.

Two doses of intramuscular betamethasone (12 mg, 24 hours apart) were administered. An elective repeat caesarean section was performed at 34 weeks and 6 days under spinal anesthesia. Intraoperatively, the pancreas appeared mildly oedematous without evidence of necrosis or abscess. A live female infant weighing 2.6 kg was delivered with Apgar scores of 8 and 9 at one and five minutes, respectively.

Postoperative recovery was uneventful. Oral intake was gradually resumed, and abdominal pain resolved completely. The patient was discharged on postoperative day 8. At two-week follow-up, she was asymptomatic with normal serum amylase (78 U/L) and lipase (45 U/L). The neonate remained well and was discharged after routine observation.

DISCUSSION

This case illustrates acute exacerbation of chronic pancreatitis during late pregnancy, a scenario infrequently described in published literature. Most Indian and Asian series report acute pancreatitis during pregnancy without documented underlying chronic pancreatic disease [1, 7-10]. The presence of ductal dilatation and intraductal calculus on ultrasonography in our patient confirmed chronic pathology, distinguishing this case from typical acute presentations.

The clinical presentation and enzyme levels in our patient were comparable to reported Asian case series, where serum amylase and lipase values show wide variability and do not consistently correlate with disease severity [7-9, 11]. The favourable biochemical response within 72 hours suggested mild to moderate disease, supporting initial conservative management in line with guideline recommendations [5, 6].

The timing of delivery in pancreatitis complicating pregnancy remains individualized. While conservative management is preferred, several reports suggest that delivery in late gestation may facilitate maternal recovery when symptoms persist despite adequate therapy [8, 9, 12]. In our case, partial response, mechanical effects of advanced pregnancy, and fetal maturity justified planned caesarean delivery, resulting in excellent maternal and neonatal outcomes.

Long-term follow-up is essential in patients with chronic pancreatitis, given the risk of recurrence, pancreatic insufficiency, and future pregnancy complications. Early gastroenterology follow-up was therefore arranged for definitive evaluation and counselling.

CONCLUSION

This case demonstrates that acute exacerbation of chronic pancreatitis can occur in late pregnancy and may require individualized management. While conservative therapy remains the initial approach, planned delivery in selected advanced-gestation cases may facilitate maternal recovery with favourable neonatal outcome. Multidisciplinary involvement and close follow-up are essential.

References

1. Hemant S, Agarwal P, Rajeswari KS. Acute Pancreatitis in Pregnancy: A 2-year Experience at a Tertiary Care Center. Journal of South Asian Federation of Obstetrics and Gynaecology. 2024; 16 (3) :209-213 . Available from: https://doi.org/10.5005/jp-journals-10006-2301
2. Mądro A. Pancreatitis in Pregnancy—Comprehensive Review. International Journal of Environmental Research and Public Health. 2022; 19 (23) :16179 . Available from: https://doi.org/10.3390/ijerph192316179
3. Jiang W, He R, Sun H, Zhao T, Liu X, Zhou W. Global incidence and mortality of pancreatitis in women of childbearing age from 1990 to 2021. Scientific Reports. 2025; 15 (1) :14753 . Available from: https://doi.org/10.1038/s41598-025-99435-5
4. Forsmark CE, Vege SS, Wilcox CM. Acute Pancreatitis. New England Journal of Medicine. 2016; 375 (20) :1972-1981 . Available from: https://doi.org/10.1056/nejmra1505202
5. Tenner S, Baillie J, DeWitt J, Vege SS. American College of Gastroenterology Guideline: Management of Acute Pancreatitis. American Journal of Gastroenterology. 2013; 108 (9) :1400-1415 . Available from: https://doi.org/10.1038/ajg.2013.218
6. Zhang T, Wang G, Cao Z, Huang W, Xiao H, Wei H, *et al*. Acute pancreatitis in pregnancy: a 10-year, multi-center, retrospective study in Beijing. BMC Pregnancy and Childbirth. 2022; 22 (1) :414 . Available from: https://doi.org/10.1186/s12884-022-04742-8
7. Kim JY, Jung SH, Choi HW, Song DJ, Jeong CY, Lee DH, *et al*. Acute idiopathic pancreatitis in pregnancy: A case study. World Journal of Gastroenterology. 2014; 20 (43) :16364–16367 . Available from: https://doi.org/10.3748/wjg.v20.i43.16364
8. Khan F. Acute pancreatitis in pregnancy: a rare case report. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2024; 13 (2) :436-440 . Available from: https://doi.org/10.18203/2320-1770.ijrcog20240149
9. Chen Q, Zhang X, Deng X. Clinical Study on Acute Pancreatitis in Pregnancy in 26 Cases. Gastroenterology Research and Practice. 2012; 2012 :1-5 . Available from: https://doi.org/10.1155/2012/271925
10. Priya KMNV, Sheela CN, Banka S, Mahalakshmi T. Maternal and perinatal outcome of acute pancreatitis during pregnancy: a 5 year experience at a tertiary care centre. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2016; 5 (11) :4041-4045 . Available from: https://doi.org/10.18203/2320-1770.ijrcog20163886
11. Verma M, Agarwal V, Sharma M, Yadav P. Acute pancreatitis in pregnancy: a case report. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2016; 5 (11) :4082-4083 . Available from: https://doi.org/10.18203/2320-1770.ijrcog20163897
12. Anees F, Khan RS, Naz S, Wadani ZH. Acute Pancreatitis in Pregnancy and Puerperium: Assessing Maternal and Fetal Impact, Etiologies, and Clinical Outcomes at a Tertiary Care Hospital in Pakistan. Cureus. 2024; 16 (12) :e76393 . Available from: https://doi.org/10.7759/cureus.76393

How to cite this article: Prabhu GA, Swamy S, Dalal A, Metgud S. A Rare and Challenging Case of Acute Pancreatitis in Pregnancy - A Case Report. Perspectives in Medical Research 2025; 13(3):215-217 DOI: 10.47799/pimr.1303.25.77