



## ACUTE PANCREATITIS WITH POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME (PRESS) IN PREGNANCY - SUCCESSFUL OUTCOME

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**ABSTRACT** Acute pancreatitis in pregnancy is rare, which can have high maternal mortality and fetal loss. The spectrum of acute pancreatitis in pregnancy ranges from mild to serious pancreatitis associated with necrosis, abscesses, pseudo cysts & multi-organ dysfunction syndromes. We report a case of acute pancreatitis in a 22 year old Gravida2 para0 abortion1, at 33 weeks of gestation. She presented with complaints of pain abdomen, radiating to back, associated with vomitings and breathlessness of 2 days. Investigations revealed increased levels of Amylase & Lipase levels. She was subjected lower segment caesarean section on the same day in view of severe pancreatitis. Patient shifted to ICU for monitoring. As she developed hypertension in the immediate post-operative period Tab. Labetalol 100mg was started twice a day. On 10th Post-operative day, patient developed seizures, followed by posterior reversible encephalopathy syndrome. After obtaining haemodynamic stability, she is shifted to ward. Both mother and baby were discharged on 25 Post-operative day in good condition.

**KEYWORDS :** Pregnancy, acute pancreatitis, serum amylase, serum lipase, ultrasonography.

### Introduction:

Acute pancreatitis is a rare and serious complication during pregnancy, estimated to occur in 1/1000 to 1/12000 pregnancies[1]. The most common etiology of acute pancreatitis in pregnancy is biliary, caused by gall stones or sludge [2]. Other causes are hyperlipidemia and alcohol abuse. The recent advances in clinical gastroenterology have improved the early diagnosis and effective management of biliary pancreatitis[3]. Abdominal ultrasonography and endoscopic ultrasonography are ideal imaging techniques in pregnancy for diagnosing the disease because they have no radiation risk. Prompt diagnosis and treatment could reduce maternal and fetal morbidity and mortality [4]. Acute pancreatitis usually occurs in 3<sup>rd</sup> trimester or early post-partum period. The fetal risk from Acute pancreatitis during pregnancy threatened preterm, prematurity and in intra uterine fetal death.

### Case Report:

A 22year old Gravida2 para0 abortion 1, at 33 weeks of gestation, was referred from a private clinic with a history of severe epigastric pain radiating to back associated with vomitings, fever and breathlessness of 2 days duration and with lab tests showing serum amylase 1635 u/L, serum lipase 1045 u/L, platelets 57,000/cumm for further management. On general physical examination, patient was conscious, well oriented, moving all limbs. Temperature 101<sup>o</sup>F, Pulse Rate 106/min, Respiratory rate 25/min, BP 110/80mmhg, SPO<sub>2</sub> 94%.

**Blood tests** showed Hb 9.1gm/dl TC 8,800cells/cumm, platelets 57,000/cumm, LDH-1100u/L, Serum calcium 9.1mg/dl, Serum Triglycerides-183mg/dl, Random Blood Sugar-121mg/dl, Total Bilirubin-1.8mg/dl, Indirect Bilirubin-7.6mg/dl, Prothrombin Time-16.74sec, INR-1.40, APTT-31.12sec, Serum Amylase 1635u/L, Serum Lipase-1045u/L.

Her past history was nil significant and there was no history suggestive of jaundice or gall stones. Per abdomen examination showed distention, tenderness all over the abdomen. Exact size of uterus could not be made out. Clinical evidence of free fluid was present. Fetal heart sounds 142bpm with doppler. In view of shortness of breath, Tachypnea and decreased O<sub>2</sub> saturation, she was immediately shifted to

ICU for further monitoring. Findings of USG abdomen revealed, Pancreas was Bulky and hyperechoic, with surrounding peripancreatic inflammatory changes suggestive of acute pancreatitis with mild ascites & pregnancy was corresponding to Single live fetus 33wk±1 week gestation. CT SCAN findings suggestive of acute Interstitial pancreatitis, with minimal bilateral mild Pleural effusion with underlying basal segments collapsed with Hepato Spleenomegaly. Patient was given steroids for fetal lung maturity, as our neonatal intensive care unit was equipped to manage neonates of above 33 weeks of gestation. The decision was taken to do emergency caesarean section in view of severe pancreatitis. Per-operative findings showed Straw coloured ascitic fluid. A live female baby with weight 2.1 kg was delivered & shifted to NICU. There was no complication during caesarean section. Patient shifted to ICU and put on mechanical ventilator. Ryle's tube aspiration & CVP line were inserted. Patient was given received 6 units of Random platelets and 2 units of Packed RBC. On postoperative day 2, extubation was done. Platelets were increased to 1 lakh/cumm. Issues like Hypoalbuminemia, Hypokalemia, Metabolis acidosis arised, were corrected. On postoperative day 4, she developed hypertension, was kept on Tab Labetalol 100mg 1 bd. On 6<sup>th</sup> post-operative day, Sr Bilirubin levels were elevated & revealed Total Bilirubin 5mg/dl, Indirect Bilirubin 1.3m/dl, Direct Bilirubin 1.9mg/dl, Sr. Albumin-1.6gm/dl, Sr Potassium- 2.6mmol/L. From 8<sup>th</sup> post operative day, pancreatic enzymes were supplemented. On 10<sup>th</sup> post operative day, she had sudden new onset of seizures with BP 180/110 mmhg, along with high grade febrile episode of 102<sup>o</sup>F. GRBS showed 67mg/dl. Patient was started on parenteral Antibiotics & Antiepileptics. To secure airway, Intubation was done. She was kept on mechanical ventilator. Findings on MRI brain were suggestive of posterior reversible Leuko encephalopathy syndrome. Neurophysician consultation was taken. As per Neurophysician was advised EEG was taken and report was norma. Patient was kept on Tab. Levipil 500mg twice a day. No further seizures were observed. On the next day, extubation was done. On 16th post-operative day, patient was shifted from ICU to ward, as she was haemo dynamically stable on room air, concious & coherent. On 25th post-operative day, both mother and baby were discharged from hospital, in good condition.

### Discussion:

Acute pancreatitis during pregnancy remains a challenging clinical problem to manage, with a relatively limited but expanding evidence base [4]. Acute pancreatitis during pregnancy is a rare event, and can be associated with maternal mortality and fetal loss [5]. The most common etiology of acute pancreatitis in pregnancy is biliary caused by gall stones or sludge [2]. Other causes are hyperlipidemia and alcohol abuse [6]. Lipids and lipoproteins (including triglycerides) levels are increased during pregnancy, which increases three fold peak in the third trimester [4]. Signs and symptoms of acute pancreatitis usually include mid epigastric pain, left upper quadrant pain radiating to left flank, anorexia, nausea, vomitings, decreased bowel sounds, lowgrade fever, and associated pulmonary findings 10% of the time (unknown cause) [4]. Imaging of the pancreas can be performed by using ultrasound and computed tomography [4]. Abdominal ultrasound, computed tomography (CT), endoscopic ultrasound and magnetic resonance cholangiopancreatography (MRCP) are available for diagnosing a biliary etiology for acute pancreatitis [5]. Diagnostic Endoscopic Retrograde Cholangiopancreatography (ERCP) is to be avoided whenever possible owing to the associated risks including bleeding, perforation, fetal radiation, while abdominal ultrasound, MRCP and EUS do not carry these risks [4]. Diagnostic blood tests for Acute Pancreatitis include serum amylase and lipase, as well as triglycerides levels, calcium levels, and a complete blood count [4]. Amylase levels in pregnancy range from 10-160IU/L [4]. These values vary depending on each laboratory. Lipase, another enzyme produced by the pancreas, has norms ranging from 4-208 IU/L (these also vary depending on laboratory) [4]. Conservative medical management of pancreatitis includes intravenous fluids, nasogastric suctioning, bowel rest, use of analgesics and antispasmodics, fat restriction with parenteral nutrition, and antibiotics [7]. However surgical treatment could be considered under certain circumstances, such as pancreatic enlargement and necrosis, gastrointestinal perforation or no improvement after 2-3 days of conservative management [3]. The timing of pregnancy termination for patients with severe acute pancreatitis (SAP) has long been an issue for obstetricians. Indications for pregnancy termination include full-term gestation, deteriorated condition after 24-48 hours of treatment , no improvement of paralytic ileus , still birth, fetal malformation, and severe pancreatitis . Caesarean section is still the preferred method for pregnancy termination [8].

#### Conclusion:

Acute pancreatitis in pregnancy remains a challenging clinical problem to manage (4). Early diagnosis and classification of severity of acute pancreatitis at presentation is an essential step for successful management in patients suffering from acute abdominal pain during pregnancy[3]. A multidisciplinary team consisting of gastroenterologist, Medical and surgical, radiologist, obstetrician and Paediatrician / Neonatologist should be included in the treatment of acute pancreatitis in pregnancy to improve the outcome.

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