



Acute Pancreatitis in Second Trimester Leading to IUFD and Multi-Organ Dysfunction

Erik Romanelli MD, MPH; Shubinath Velutha MD; Shamantha Reddy MD

Montefiore

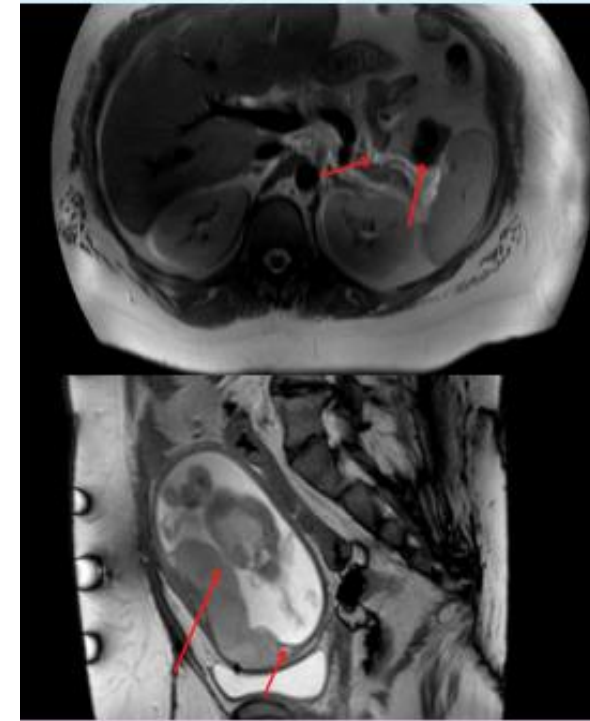
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- The incidence of acute pancreatitis in pregnancy (APIP) is estimated as high as 1 in 1000 pregnancies [1].
- The disease process is commonly caused by gallstones, alcohol usage, infections, idiopathic causes, and hyperlipidemia.
- Here we report a case of triglyceride-induced pancreatitis in the setting of Apolipoprotein C2 (APOC2) deficiency and concurrent COVID-19 infection.

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Case Presentation:

- 38-year-old G13P1 admitted with complaints of acute abdominal pain, nausea, and multiple episodes of hematochezia.
- She was newly noted to be both 20-weeks pregnant and positive for COVID-19 infection.
- History was significant for severe persistent asthma, prior gastric bypass, cholecystectomy, D&C for ectopic pregnancy, recurrent miscarriages, and one prior cesarean delivery.
- Initial labs reported elevated lipase (289U/L). Initially, the patient was stabilized with intravenous fluids, potassium supplementation, proton-pump inhibitors, and patient-controlled analgesia with IV hydromorphone.
- A central line was placed in the right IJV due to difficult vascular access.
- On further investigation, TG, ALT, and AST were 1843mg/dl, 2622, 5284, respectively.
- Urgent MRI revealed edema of the pancreas with peripancreatic stranding and fluid compatible with pancreatitis.
- Chest X-Ray reported left lung atelectasis and infiltrates consistent with early ARDS.
- Despite initial interventions, her condition further deteriorated with the development of SIRS and a new-onset coagulopathy (INR rose to 4.4) and acute renal failure, requiring significant transfusion of blood products.
- Fetal demise was recognized on hospital day 13.
- She underwent D&E under general anesthesia (neuraxial contraindicated with persistent coagulopathy) and clinically improved shortly thereafter.
- She was discharged from the hospital in stable condition.



Discussion

- There are a handful of case reports which attribute COVID-19 infection as the inciting etiology of acute pancreatitis in the non-pregnant population, suggesting that injury to the pancreas occurs in up to 17% of affected patients.
- Two case reports attribute COVID-19 to development of APIP [3,4]. Our case is unique in being a case of triglyceride-induced APIP, which has not been reported in the setting of a concurrent COVID-19 infection.
- Hormonal changes associated with pregnancy alone can cause dyslipidemia from impaired activation of lipoprotein lipase, and in this case with co-existing APOC2 deficiency (and questionable impact of COVID-19 infection), triglycerides rose to a severely-elevated level.
- Treatment options for APOC2 deficiency include fresh frozen plasma (which contains APO-C2, plasmapheresis, lipid-lowering agents, and fat-free foods.
- An obstetric anesthesiologist's knowledge and skill in managing medically complex peripartum cases as a member of a multidisciplinary team are displayed in this case.

