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Perioperative management of a case of gestational hypertriglyceridemia induced acute pancreatitis in a 37-week parturient

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Introduction

The incidence of acute pancreatitis in pregnancy is 1 in 1000 to 3000 pregnancies, gallstones remain the most common cause. We report a case of gestational hypertriglyceridemia induced acute pancreatitis at full term.

Case report

A 31 -year-old primigravida at 37 weeks of pregnancy presented with acute abdominal pain radiating to her back. Labour and pre-eclamptic toxaemia were excluded. On examination her blood pressure was 150/100 mmHg and heart rate was 105 bpm, with upper abdominal tenderness. Blood investigations were suggestive of acute pancreatitis. Abdominal CT confirmed acute pancreatitis with no necrosis. To improve both maternal and foetal outcome, caesarean delivery was expedited after multi-disciplinary discussion. Anaesthetic management included invasive blood pressure monitoring, single shot spinal anaesthesia with intrathecal diamorphine, oxytocin bolus and infusion as well as prophylactic phenylephrine infusion. The surgery was uneventful, and the baby was delivered safely.

Post-operatively, the patient received level one care in the high dependency unit. Morphine patient-controlled analgesia was administered for pain associated with pancreatitis. She was discharged on fourth day without requiring treatment for hypertriglyceridemia as this spontaneously improved.

Day	0	1	2	3
Hb (g/L) (115-160)	143	110	104	110
WCC (109/L) (4-11)	20.6	19.6	14.3	15.1
Platelets (109/L) (150-400)	215	196	187	221
INR	0.9	1.1	1.1	1.1
Amylase (U/L) (30-110)	811	572	449	161
Triglycerides (mmol/L) (0.3-1.8)	5.05	3.29	2.53	2.37
ALP (U/L) (60-350)	218	152	141	158

	Day 0 Preoperative (18:33)	Day 0 Preoperative – (prior to spinal) (21:54)	Day 1 Postoperative in HDU
pH (7.35 – 7.45)	7.45	7.40	7.42
PaCO2 (kPa) (4.5 – 6.0)	3.20	3.77	4.36
PaO2 (kPa) (> 10 on air)	11.8	10.5	11.7
HCO3 mmol/L (22-26)	20	20	21
Lactate units mmol/L (< 2)	1.8	2.4	0.9
Base excess mEq/L (-2 - +2)	-7.2	-7.2	-3



Discussion

Acute pancreatitis in pregnancy from hypertriglyceridemia is a rare complication in pregnancy which accounts for 5%[1,2] of all cases of acute pancreatitis and is associated with high morbidity and mortality. Initial management includes fluid resuscitation, analgesia and nutritional support. It is imperative to monitor serum triglyceride levels to prevent necrotising pancreatitis and organ failure. Several studies mention the use of plasma exchange[3] in patients with severe hypertriglyceridemia. In non-severe hypertriglyceridemia or if plasma exchange is unavailable, intravenous insulin therapy[4] should be considered with monitoring of blood sugar levels, and it should be continued until the triglyceride levels are < 5.6 mmol/L.We managed our patient conservatively as triglyceride levels were < 5.6 mmol/L.

Patients presenting with non-obstetric abdominal pain should be assessed for acute pancreatitis and if diagnosed should have multi-disciplinary involvement and mode of delivery should be determined according to gestational term and severity of acute pancreatitis.

References

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