Section: Miscellaneous

Case Report

COMPLEX MANAGEMENT OF PRE-GESTATIONAL DIABETES IN A 35-YEAR-OLD PRIMIGRAVIDA WITH MID-TRIMESTER COLECYSTECTOMY: A CASE REPORT

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ABSTRACT

Pre-gestational diabetes mellitus (PGDM) is associated with increased maternal and foetal morbidity, particularly when glycaemic control is suboptimal in early pregnancy. We report a case of a 35-year-old primigravida with poorly controlled type 2 diabetes mellitus (HbA1c 8.2%) in the first trimester, who later developed acute cholecystitis at 24 weeks of gestation. She underwent successful laparoscopic cholecystectomy in the second trimester with good maternal and foetal outcomes. This case highlights the importance of early glycaemic optimization, multidisciplinary care and safe surgical intervention during pregnancy.

Keywords: Pre-gestational diabetes, cholecystectomy in pregnancy, prim gravida, maternal-foetal medicine, high-risk pregnancy.

INTRODUCTION

Pre-gestational diabetes complicates approximately 1% of pregnancies and carries a high risk of congenital anomalies, spontaneous abortion, preeclampsia, and foetal macrosomia.[1] Optimizing glycaemic control before and during pregnancy significantly reduces these risks. Non-obstetric surgical conditions such as acute cholecystitis, although rare, can present additional challenges.[2] Laparoscopic cholecystectomy during pregnancy, particularly in the second trimester, is considered safe when clinically indicated. We report a case of a diabetic primigravida requiring cholecystectomy in mid-pregnancy.[3]

CASE PRESENTATION

Patient Information: A 35-year-old woman, gravida 1 para 0, presented at 5 weeks gestation for routine antenatal care. She had a known 13 year history of type 2 diabetes mellitus, previously managed with oral hypoglycaemic. Her preconception follow-up was irregular, and she reported no pre-pregnancy counselling or glycaemic optimization.

Clinical Findings and Initial Assessment

BMI: 29.3

No complaints of vaginal bleeding, abdominal pain, or systemic illness at the time of presentation.

Physical examination was unremarkable.

Laboratory investigations showed HbA1c of 8.2%.

Fasting and postprandial blood glucose levels were elevated.

Early ultrasound confirmed a viable singleton intrauterine pregnancy.

Management of Diabetes: Oral hypoglycaemics along with insulin therapy was initiated with frequent glucose monitoring. She was referred to an endocrinologist and a dietitian. Glycaemic control gradually improved over subsequent weeks. Risk and complications related to high HBA1C explained.

Acute Complication in Second Trimester: At 26+5 weeks gestation, the patient presented with acute onset of severe right upper quadrant abdominal pain, nausea, and vomiting. Ultrasound revealed gallstones with features suggestive of acute cholecystitis. Initial conservative management failed to relieve symptoms. After thorough evaluation and consultation with surgery and anaesthesiology teams, she underwent laparoscopic cholecystectomy at 27 weeks gestation. The procedure was uneventful with perioperative foetal monitoring.

Follow-Up and Outcome: Postoperative recovery was smooth. Insulin therapy was adjusted perioperatively. Serial ultrasounds showed appropriate foetal growth and amniotic fluid volume. No signs of preeclampsia or foetal distress were observed. The pregnancy progressed without further complications. Betnasol cover was given. Regular monitoring of blood pressure, urine albumin and LFT done. PTLSCS was done because of doppler changes and Male child was delivered.

DISCUSSION

This case demonstrates the importance of early intervention in PGDM, especially in advanced maternal age and first pregnancies. An HbA1c above 8% is associated with increased risk of congenital anomalies, necessitating detailed foetal anatomical screening.

Additionally, the need for non-obstetric surgery such as cholecystectomy during pregnancy poses unique risks. The second trimester is the safest period for such procedures due to reduced risks of miscarriage and preterm labour.

Laparoscopic cholecystectomy has become the standard of care for symptomatic cholelithiasis during pregnancy when conservative management fails. In this case, timely surgical intervention resulted in favourable maternal and foetal outcomes.

CONCLUSION

High-risk pregnancies involving poorly controlled diabetes and surgical emergencies require coordinated multidisciplinary management. Early glycaemic optimization and individualized care planning are essential to minimize complications. Surgical intervention, when indicated, can be safely performed during pregnancy, particularly in the second trimester.

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