

Maternal Congenital Diaphragmatic Hernia First Presented in Second Pregnancy

Dr. Diana Man Ka CHAN, Dr. Pui Wah HUI
Department of Obstetrics & Gynecology, The University of Hong Kong, Hong Kong SAR

OBJECTIVE

Congenital diaphragmatic hernia (CDH) is rare and the prevalence of CDH is approximately 1 to 4 cases per 10,000 live births. The diagnosis of CDH in adults is extremely rare, with only around 30 cases of CDH presented during pregnancy were reported in English in past 50 years.

CASE REPORT

A 17-year-old lady, who had one preterm delivery at 36 weeks in her previous pregnancy, was admitted for threatened preterm labor at gestation 31 weeks. She complained of persistent chest and epigastric pain associated with repeated vomiting following the cessation of uterine contractions with tocolysis. Abdominal examination showed soft and non-irritable uterus with epigastric tenderness without peritoneal sign. Electrocardiogram showed sinus rhythm with no acute ischemic changes. Serum creatine kinase and troponin T were both normal. The epigastric pain progressed further and became generalized to whole abdomen. She was initially managed as acute pancreatitis in pregnancy as serum amylase was elevated to 1435 U/L (25-124 U/L). However, chest X-ray showed upward displacement of bowel into left thoracic cavity and MRI confirmed left diaphragmatic hernia with stomach and left sided bowel loops herniated into thorax. Emergency lower segment Caesarean section together with laparotomy for repair of diaphragmatic herniation was performed.

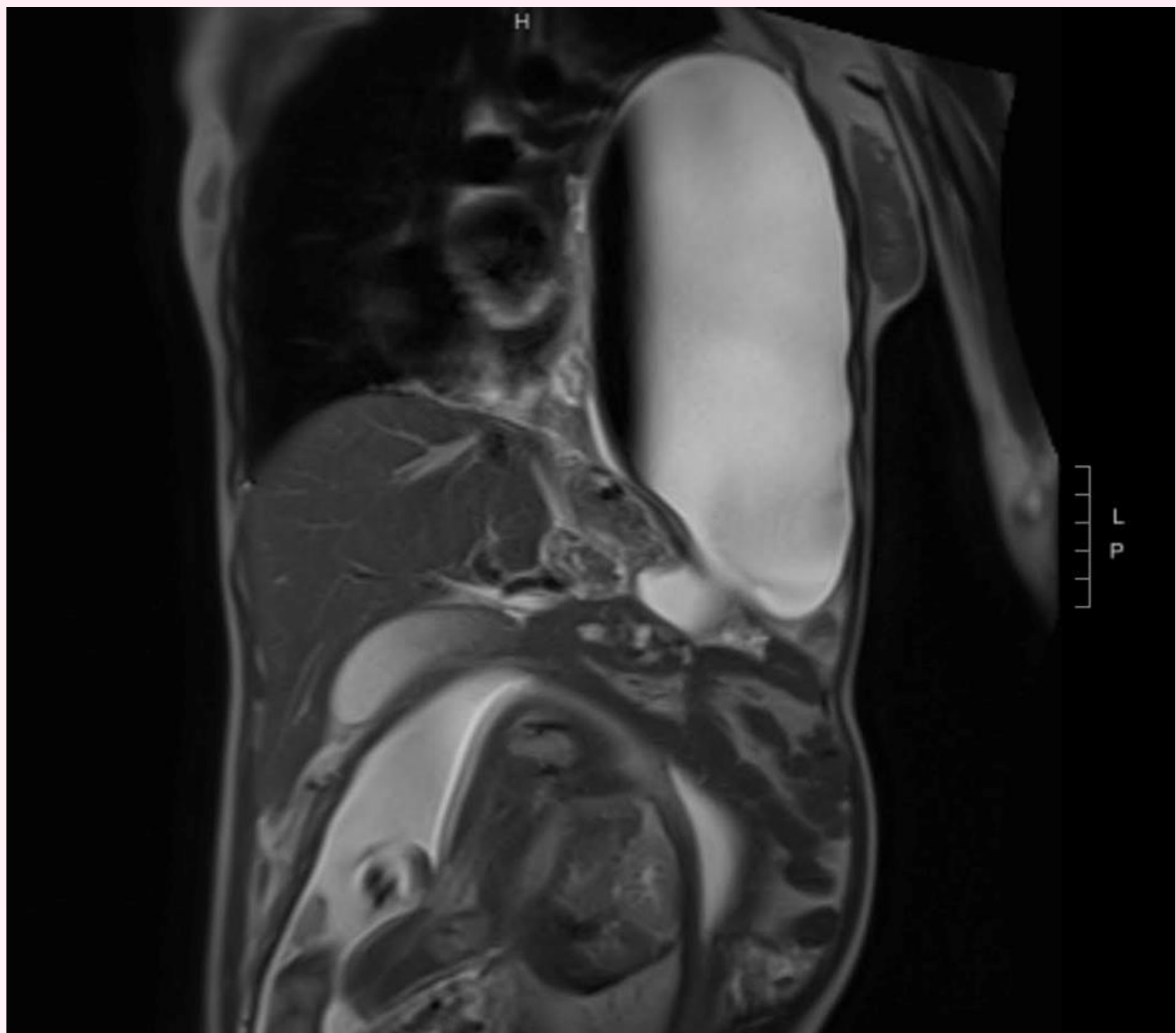
DISCUSSION

Maternal congenital diaphragmatic hernia is a rare diagnosis in an obstetric patient presented with epigastric pain. This presentation was even atypical as the patient remained asymptomatic in her first delivery. In pregnancy, the gravid uterus potentially aggravates the diaphragmatic defect and hernia condition due to increased intrabdominal pressure. However, epigastric pain can be easily treated as minor ailment of pregnancy due to food intolerance with gastro-esophageal reflux. The non-specific symptoms related to CDH mimicking symptoms of pregnancy increase the diagnostic difficulty. Differential diagnoses including threatened preterm labor, cardiac causes (e.g., aortic dissection, acute coronary event) and acute pancreatitis had been considered in the present case. The raised amylase level could indeed be a marker of impending bowel ischemia. The presence of bowel shadow in the thoracic cavity in chest X-ray was a classical feature of CDH which should be an alert of this rare diagnosis in adult especially during pregnancy.

CONCLUSION

We reported a case of maternal CDH first presented in the second pregnancy. Adult form of CDH is rare and the diagnosis of CDH during pregnancy can be difficult. Presenting symptoms are non-specific. Prompt diagnosis and surgical attention is essential to prevent bowel incarceration during pregnancy.

IMAGE



MRI thorax, abdomen and pelvis showing a large left posterolateral diaphragmatic defect with associated left diaphragmatic hernia up to upper thoracic level. Herniated structures included stomach and left sided bowel loops.