Abstract:
The occurrence of congenital diaphragmatic hernia in adults is rare and misleading even to experienced clinicians. In contrast to neonatal diaphragmatic hernias, most adult patients present with vague gastrointestinal and respiratory symptoms mimicking other diseases. Hence high index of suspicion is required. When a diagnosis is established, it must be promptly treated surgically in order to avoid complications such as strangulation or bowel perforation. We are presenting two cases of diaphragmatic hernia presenting in adulthood.

INTRODUCTION
Lazarus Riverius first described congenital diaphragmatic hernia (CDH) in 1690, which was found incidentally in a 24 old man at post mortem. Congenital diaphragmatic hernia occurs 1 in 2000² live births and accounts for 8% of all major congenital anomalies. They are divided into eventration of diaphragm, posterolateral hernia of Bochdalek, parasternal hernia of Morgagni–Larrey, and peritoneo–pericardial hernia. They usually become symptomatic during the earlier age rarely progress on to adulthood. Diagnosis usually become apparent once complications set in, which are either gastrointestinal, respiratory or cardiovascular.

CASE REPORT 1
35 yrs old female referred from medicine department with complaints of difficulty in breathing, generalized abdominal pain, fever and cough with expectoration for 10 days. There was no history of trauma, asthma or TB. On examination patient was febrile dyspnoeic and dehydrated. Respiratory system examination showed tracheal shift to right, reduced vocal fremitus, and reduced breath sounds on left side of chest. Abdomen was soft with epigastric tenderness. Other systemic examination was normal. X ray chest showed air fluid level and diagnosed as pyopneumo thorax (FIG I). CT
scan (FIG 2,3,4) chest showed coils of intestine in the thoracic cavity and mediastinal shift to right mimicking dextro cardia.

Vertical midline laparotomy was performed. On opening the abdomen, a 6*5cm defect in the posterolateral part of diaphragm with small intestine, omentum and part of stomach inside the thoracic cavity with minimal adhesions were found. Entire contents were reduced into the abdominal cavity. The bowel was viable. The defect in the diaphragm was closed with 1-0 polypropylene in two layers after keeping ICD. Post op X ray showed adequate expansion of lung. Post operative periods were uneventful and she was discharged on 10th POD.

CASE REPORT 2
26 years old female referred from OG Department on 7th post LSCS day with c/o acute onset non bilious vomiting and abdominal pain for 3 days duration. No h/o constipation, diarrhea. On physical examination patient was comfortable, not dyspnoeic. Respiratory system showed tracheal shift, reduced air entry on the left hemithorax and apical impulse shift to right. Abdomen was soft with epigastric tenderness. Chest x ray(FIG 5) showed elevation of left dome of diaphragm
with obliterated cardio phrenic angle. CT Thorax showed diaphragmatic hernia (FIG 6, 7) with stomach as a content with possible gastric volvulus.

Emergency vertical midline laparotomy was done. Intra operatively, part of stomach found herniating into the thoracic cavity. Contents were reduced into the peritoneal cavity. There was a defect, 5*3cms in the postero lateral part (FIG 8) of diaphragm. Defect was closed using 1-0 polypropylene in two layers. Left intercostals tube drain was kept. Post operative chest X ray showed adequate lung expansion. Post operative periods were uneventful. Patients discharged on 10th POD.

Two adult cases were operated upon left foramen Bochdalek hernia. Case 1 presented like pyopneumothorax was an unusual presentation in adult patient. Case 2 presented with abdominal pain and vomiting. Free movement of the viscera through the defect may lead to no symptom or intermittent symptoms. If a loop of intestine gets obstructed or strangulated, the outcome may be fatal in both cases mesh repair not done due to non availability mesh in emergency.
DISCUSSION
The diaphragm forms from the septum transversum which goes and meets the dorsal mesentery of the foregut. Pleuro peritoneal folds then develop on each side of the septum and extend posterolaterally dividing the chest from the abdomen. The diaphragm is completed at the ninth week by in growth of muscle fiber from cervical myotome into pleural and peritoneal folds. This coincides with the return of intestine from umbilical stalk. Congenital diaphragmatic hernia occurs when the muscular entities of the diaphragm, fail to develop normally, resulting in displacement of abdominal contents into the chest. Bochdalek hernia makes up the majority of cases. The major problem in the Bochdalek hernias is it forms the posterolateral defects of the diaphragm, which results in either failure in the development of pleuro peritoneal folds or improper or absent migration of diaphragmatic musculature. Morgagnian hernias are less common occurring only in 5-10% congenital diaphragmatic hernias. The foramen morgagnian hernia occurs in anterior midline through the sterno costal hiatus of diaphragm. The late presentations of congenital diaphragmatic hernia were considered rare, but late presentations have been documented quite frequently. Patients present with wide variety of respiratory and gastro intestinal symptoms but most of the patients are asymptomatic and diagnosed incidentally with the increasing use of CT scan. The diagnosis may be suspected clinically by the presence of bowel sounds in the lower hemithorax. Radiological appearance may resemble pneumo thorax, pyopneumothorax, pleural effusion. There is thoracic position of naso gastric tube on plain x ray. Symptoms may be intermittent and may be due to mechanical factors which raise the intra abdominal pressure.

Adult diaphragmatic hernias are most commonly repaired with simple suturing or mesh repair depending on the size of the defect. Thoracotomy approach has the advantage of easier repair of the defect while laparotomy allows easier dealing with contents that may require attention. In our case, we repaired both the defects via abdominal route.

CONCLUSION
A delayed presentation of diaphragmatic hernia is uncommon but not rare. The features of these hernias are varied and may be associated with misleading clinical and radiological assessment which leads to misguided therapy and potentially fatal outcome. A high index of suspicion is needed to avoid such situations.

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