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CASE REPORT

CONGENITAL DIAPHRAGMATIC HERNIA

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ABSTRACT

The exact incidence of herniation through diaphragm is difficult to assess. If oesophageal Hiatal Hernia is excluded, a diaphragmatic Hernia in a child is usually through Foramen of Bochdalek on left side. The Foramen of Morgagni is involved much less frequently. The commonest and most important type of Diaphragmatic Hernia is through the patent pleureperitonial canal (Bochdalek). This causes trouble on the left side more often than on the right, where the liver blocks off all but large hernias. This paper is a report of two cases with delayed onset type of Hernia which were repaired surgically after confirmation of diagnosis.

CASE NO. 1:

A one-year-old male child was admitted to the Pediatric Unit with two months history of dry paroxysmal cough and intermittent low grade fever associated with sweating. The child had difficulty in breathing since birth which increased over the last two months.

The child was born at home as a result of consanguineous marriage, he had a delayed cry and was resuscitated at home, (mouth to mouth breathing).

He had normal birth weight, was breast fed and vaccinated. There was history of slight difficulty in breathing since birth which aggravated over the last two months for which he was treated outside repeatedly as a case of "Pneumonia."

On examination the child looked emaciated and dyspnocic. He weighed 5.3 Kg (below 3rd percentile). His height was 71 cm which also falls below 4rd percentile.

On examination of the chest, movements were diminished on the left side with increased dullness on the left lower sone. Breath sounds were diminished on left side while bronchial breath sounds were heard on the right side. The heart sounds were more prominent on the right but the child had a 2 cm liver on the right side excluding situs inversus.

On chest roentgenogram, radio-lucent cavity like shadow was present on the left side of the chest, while the heart was pushed to the right. A feeding tube was passed into the stomach and another X-Ray was taken, which showed the radio-lucent shadow to be the stomach. Barium meal study showed whole of the stomach and part of the small intestine laying in the left side of the chest. The diagnosis of a diaphragmatic hernia was confirmed.

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The child was referred to surgical "A" unit of DHQ Hospital where he was operated the same day. General Anaesthesia was given and through left paramedian incision peritoneum was opened. Stomach, spleen, momentum and small gut had gone through a defect in the left dome of diaphragm. These were reduced and nasogastric Lube was put in to deflate the stomach. Diaphragm was repaired with silk and intercostal tube under water seal was put in the left pleural cavity. Child was X-Rayed next day and the lung had fully expanded and after 48 hours' chest tube was removed and after 72 hours' nasogastric lube was taken out followed by an uneventful recovery and was discharged home on 9th day.

CASE NO. 2:

3 weeks old male baby was referred to pediatric Weird with a history of difficulty in breathing and cynosis. After delivery he had a delayed cry and difficult respiration. He was resuscitated, he improved for few days but again went into respiratory distress. Clinically child was restless with respirator)' distress and chest movement on left side were restricted and weak bowel sounds could be heard on auscultation in the chest on left side. X-Rays chest showed absence of Diaphragm on left side "Diagnosis of Diaphragmatic hernia was made and emergency laparotomy was done. There was a big congenital hole in left dome of Diaphragm with stomach, spleen, transverse colon and small gut in the pleural cavity and the lung was small and hypoplastic. Contents were reduced. Diaphragm was repaired. Nasogastric tube was put in left thoracic tube with under water seal was also put in which was removed after 48 hours when the lung was expanded.

He made a good recovery and was discharged on die 8th day.

DISCUSSION:

Diaphragmatic Hernia is predisposed to by die return of midgut from the hernia in the cord and the unfixed and unrotated intestine passes up into chest. The presence of intestine, spleen, stomach left lobe of the liver pleural cavity interferes with the normal development of lung specially the left one. The resulting hypoplasia of the lungs can be recognised by the small size of left lung when seen at operation. This is the cause of respiratory insufficiently which persists after the reduction of the contents of the hernia. In addition, major cardiovascular anomalies may be associated and the right lung may be smaller than usual.

In a new born baby, cynosis difficulty is starting respiration and dexiro-cardia should suggest the diagnosis of a large left sided diaphragmatic hernia. When it presents at birth it is a neonatal emergency requiring immediate correction. In the delayed onset type, hernia may not be detected until late in infancy or childhood. It has to be differentiated from eventuation of diaphragm. The preoperative diagnosis is essentially clinical and radiological. An anteroposterior chest x-ray in neonate with some respiratory symptoms usually shows loops of Bowel in the chest. Lateral view is required for exact diagnosis which may show a mass sited anteriorly in the cardio-phramic angle. Barium Meal and follow through or Barium Enema studies can be sued to confirm the diagnosis and identify some of the contents.

Treatment is surgical an abdomen is opened through upper abdominal incision on left side. Herniated contents are pulled down into peritoneal cavity, hernia orifice is defined and closed with

non-absorbable sutures. Bowel should be searched thoroughly for anomalies specially malrotalion. nasogastric tube and under water seal should be inserted in to pleural cavity preferably on both sides because the incidence of right spontaneous pneumothorax is so high. The main post-operative problem is likely to be respiratory insufficiency which is the commonest cause of death. Some babies just do not have sufficient lung tissue to provide enough ventilatory capacity on which to survive.

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