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Educational Abstract

Topics: Thoracic/Chest Imaging

Keywords: CDH, pulmonary hypoplasia, mediastinal shift, antenatal, USG/MRI.

Congenital Diaphragmatic Hernia: An Unusual Case Report In Antenatal Imaging.

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Learning objectives: Congenital diaphragmatic hernia (CDH) affects approximately 1 in every 4000 live births. Advances in prenatal assessment and antenatal management has lead to improved survival rate.

Background: CDH has traditionally been classified as posterolateral (Bochdalek hernias- more common variety) and anterior (Morgagni hernias),but it is more practical to classify CDH as intrapleural and mediastinal, for purpose of diagnosis and prenatal counselling.[1] Intrapleural hernia(Bochdalek Hernia) due to mass effect within the thorax, cause pulmonary hypoplasia and contralateral mediastinal shift.[1] The diaphragm fails to close completely during fetal development and abdominal viscera herniates into chest. Left-sided hernias are more frequent than right sided ones[2]. The presence of intraabdominal contents in thorax arrests the development of normal lung causing ipsilateral pulmonary hypoplasia. Sometimes,abdominal contents cause cardiac shift to the contralateral side.

Findings and procedure details: Ultrasound is the mainstay of initial diagnosis. Bowel loops are seen as fluid filled echogenic cystic masses. Mediastinal deviation is often seen first and is the most obvious ultrasound sign of congenital diaphragmatic hernia.[2] Fetal MR imaging can help identify the site of the diaphragmatic defect and the hernia contents.[1]

Conclusion: once diagnosed on antenatal USG/MRI, foetuses with CDH should be referred to tertiary care centre for managementand hence reducing the mortatlity rates.

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