MRI in central diaphragmatic hernia with intrapericardial herniation

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A ten-month old male infant presented with recurrent cough. Chest radiograph [Figure 1] showed bowel shadows in the left hemithorax with elevation of the inferior border of the heart. Ultrasound (US) revealed herniation of the liver and pericardial effusion [Figure 2]. Magnetic resonance imaging (MRI) [Figures 3 and 4] showed the intrapericardial herniation and the extent of the central tendon defect (CTD). The findings were confirmed at surgery. The use of MRI in the diagnosis of CH in infants has not been reported before.

In central hernia (CH) of the diaphragm, herniation

Figure 1: Preoperative chest radiograph

Figure 2: Mid-sagittal US shows the liver (L) anterior to the heart (H). E- Pericardial effusion

Figure 3: Coronal T2 MRI: S-Stomach, L-Liver H-Heart

Figure 4: Coronal T2 MRI in a more posterior plane than Fig. 3. The extent of CTD is shown (between the two asterisks)
occurs through a CTD, mainly into the pericardial cavity and left hemithorax. The pericardial effusion in CH may be the result of pericardial irritation. The limited suprahepatic space often hinders the correct definition of the CTD at surgery. Preoperative MRI ensures the use of appropriate incision, protection of inferior vena cava and hepatic veins at surgery and the adequacy of hernia repair.

REFERENCE


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