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Newborn with intermittent grunting in the first hours after delivery

Figure 1 Chest x ray before referral to the neonatal intensive care unit. Large amounts of intestines in the left thorax are seen pushing the lung tissue towards the apex and the heart to the right. The stomach is in the abdominal cavity, but few intestinal loops are seen here.

Figure 2 (A) Thoracoscopic view of the abdominal cavity through the diaphragmatic defect. Several intestinal loops are seen in the thorax, and the lung is collapsed. (B) Thoracoscopic closure of the diaphragmatic defect with Ethibond 3x0 non-absorbable stitches.

A newborn baby boy (42 weeks' gestation with good start, Apgar scores 9,10) developed intermittent grunting with slight subcostal retractions in the first hours after birth. At first heart sounds were audible on the left side, but within two hours these shifted to the right side of the chest. The baby's colour changed from pink to pale. A chest x ray (fig 1) showed a left diaphragmatic hernia with displacement of the heart to the right side due to intestinal loops in the left thorax. A thoracoscopy was carried out. There was a small defect in the left posterolateral diaphragm, which was closed primarily without a patch (figs 2 and 3). The baby was rapidly extubated and oral feeding started. A chest x ray taken on the fourth postoperative day showed almost normal findings.

Diaphragmatic hernia has a spectrum of presentations, ranging from non-symptomatic to a life-threatening situation immediately after birth. Symptomatic hernias are treated by surgical closure of the posterolateral defect. With the advent of minimal invasive surgery, in patients with stable cardiorespiratory status, the defect may be closed through a laparoscopic or thoracoscopic approach with or without the use of a patch.^{1 2} In the present case the baby had an envelope-like defect, which was suitable for primary closure. The case illustrates nicely the minimal invasive closure of the diaphragmatic hernia using a thoracoscopic approach.

Paul H G Hogeman

Meander Medisch Centrum, Department of Paediatrics, Amersfoort, the Netherlands

Willem B de Vries

Wilhelmina Kinderziekenhuis, Department of Neonatology, Utrecht, the Netherlands

Jolmer J Smit

Meander Medisch Centrum, Department of Paediatrics, Amersfoort, the Netherlands

David C van der Zee

Wilhelmina Kinderziekenhuis, Department of Paediatric Surgery, Utrecht, the Netherlands

Correspondence to: Dr P H G Hogeman, Meander Medisch Centrum, Ringweg Randenbroek 110, 3816 CP Amersfoort, the Netherlands; p.hogeman@meandermc.nl

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