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WHAT IS YOUR DIAGNOSIS

IMAGING CLINICAL CASE

CASO CLÍNICO IMAGIOLÓGICO

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A 16-year-old female adolescent was brought to the emergency department with shortness of breath and vomiting of acute onset. No fever, diarrhea, or other symptoms were present.

The girl had a history of cerebral palsy and had been submitted to surgical correction of dorsal scoliosis five months earlier.

At physical examination, she was agitated and presented with skin pallor, polypnea, and suprasternal and subcostal retraction. Pulmonary breath sounds in the left hemithorax were absent.

The girl maintained blood oxygen saturation levels of 90% with 2 L/min of O2 and was hemodynamically stable.

Chest x-ray is shown in Figure 1.

What is your diagnosis?

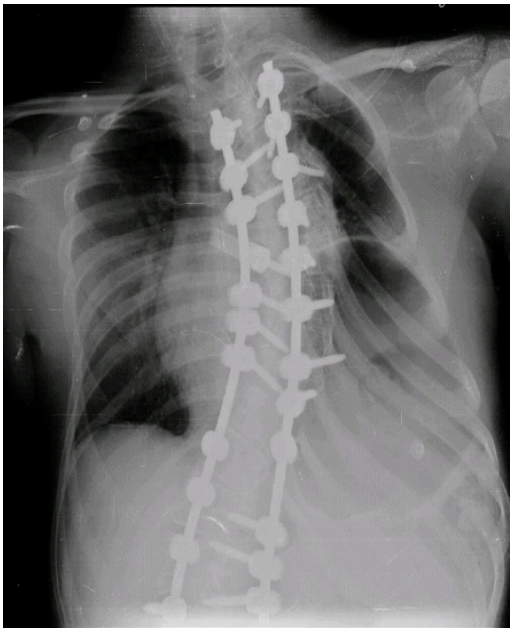

Figure 1 - Patient´s chest x-ray

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DIAGNOSIS

Diaphragmatic hernias

DISCUSSION

Diaphragmatic hernias occur in 1–3000 children and are mostly of congenital origin. Acquired diaphragmatic hernias are rare and mainly traumatic or iatrogenic. The left hemithorax is the most commonly affected side.[1-3]

Symptoms range from abdominal pain and vomiting to acute onset dyspnea.

The diagnosis is confirmed by chest x-ray or computerized tomography scan and treatment involves surgical viscera reduction and correction of the defect. In this case, the x-ray evidenced the gastric bubble in the left hemithorax, prompting the diagnosis.

Diaphragmatic hernia following surgical correction of scoliosis is an uncommon complication, with only few cases described in the literature.

Repair of neuromuscular scoliosis has higher complication rates than congenital or idiopathic scoliosis.[3]

Patients with cerebral palsy are submitted to several procedures and at risk of numerous complications. As these children are unable to define their symptoms, clinical state is difficult to access, and a high index of clinical suspicion is required.

ABSTRACT

Diaphragmatic hernias are rare in pediatric patients, occurring in 1 in 3000 children. They are mostly of congenital origin and the left hemithorax is most commonly affected. Acquired diaphragmatic hernias are rare and mainly traumatic or iatrogenic.

The case of a 16-year-old adolescent with cerebral palsy submitted to scoliosis surgical correction five months earlier is presented. The girl was brought to the emergency department due to dyspnea and vomiting of acute onset.

At physical examination, she was agitated and presented with skin pallor, polypnea, and suprasternal and subcostal retraction. Pulmonary breath sounds in the left hemithorax were absent.

The girl maintained blood oxygen saturation levels of 90% with 2 L/min of O2 and was hemodynamically stable.

The x-ray showed the gastric bubble in the left hemithorax, leading to the diagnosis.

This case shows the clinical challenge posed by children with children with cerebral palsy, who are unable to define their symptoms and make clinical state difficult to access.

Repair of neuromuscular scoliosis has higher complication rates than congenital or idiopathic scoliosis. Diaphragmatic hernia is an uncommon complication, with only few cases described in the literature.

Keywords: cerebral palsy; diaphragmatic hernia; scoliosis

RESUMO

A hérnia diafragmática é rara em idade pediátrica, com uma prevalência de 1 em 3000 crianças. É maioritariamente de origem congénita, com maior incidência no hemitórax esquerdo. As formas adquiridas estão associadas a traumatismo ou iatrogenia.

É apresentado o caso de uma adolescente de 16 anos com paralisia cerebral e antecedentes de correção cirúrgica de escoliose cinco meses antes, que foi trazida ao serviço de urgência por dispneia e vómitos de início súbito.

Ao exame objetivo encontrava-se queixosa, com palidez mucocutânea. Apresentava polipneia com tiragem suprasternal e subcostal. A auscultação pulmonar era assimétrica, com diminuição dos sons respiratórios no hemitórax esquerdo.

Embora hemodinamicamente estável, a adolescente tinha necessidade de oxigénio suplementar a 2 L/min para saturações periféricas de 90%.

Na radiografia de tórax, a bolha gástrica era visível no hemitórax esquerdo, sugerindo o diagnóstico de hérnia diafragmática.

Este caso demonstra a complexidade clínica de crianças com paralisia cerebral, nas quais a sintomatologia inespecífica dificulta a avaliação.

A correção da escoliose neuromuscular tem taxas de complicação superiores comparativamente às formas congénita e idiopática. Esta complicação é rara, com casos esporádicos na literatura.

Palavras-chave: paralisia cerebral; hérnia diafragmática; escoliose

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