

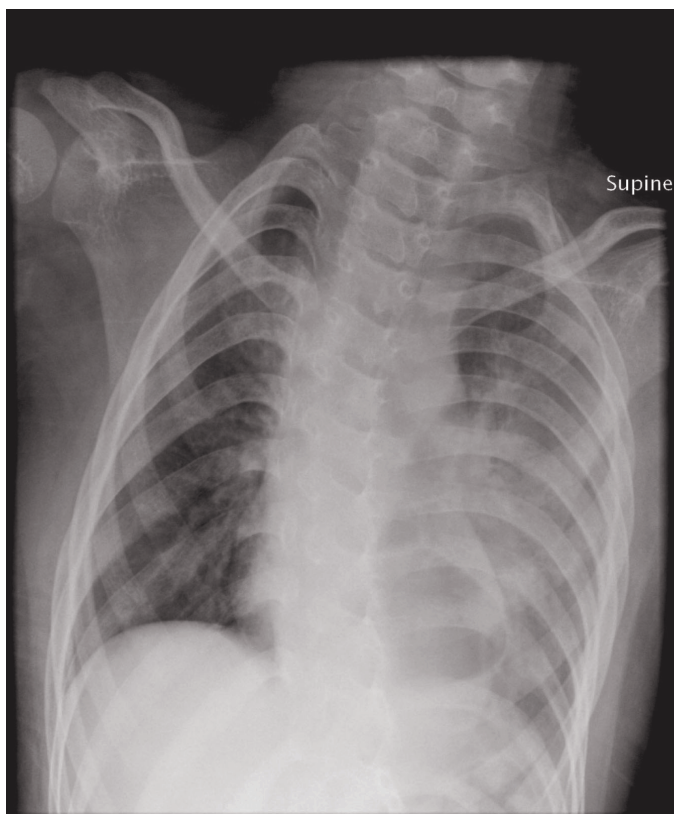


X-Ray Quiz

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This is a wheelchair-bound 4-year-old boy with chronic chest problem. Gastrostomy with fundoplication was performed 1 year ago for gastroesophageal reflux (GER) and poor weight gain.



Question

1. What are the CXR abnormalities?
2. What is the radiological diagnosis?

(Answer on page 18)



Answers to X-ray Quiz on page 16

1. CXR abnormalities:
 - a. Pneumonia over left lung
 - b. Air shadow behind heart
 - c. Scoliosis
2. Radiological diagnosis: hiatus hernia

The boy had global development delay due to congenital rubella syndrome. He still had occasional choking and vomiting after gastrostomy feeding, with recurrent pneumonia. Barium meal confirmed hiatus hernia, with the presence of GER. Hiatus hernia can worsen GER symptoms by causing more frequent relaxation of gastroesophageal junction and trapping gastric reflux inside the hernia. Hiatus hernia is divided into sliding, paraesophageal and mixed types. More than 90% of cases are sliding type, which is characterized by upward displacement of gastroesophageal junction above the diaphragm, while paraesophageal type is caused by protrusion of gastric fundus into the chest. Predisposing factors include aging, muscle weakness, obesity, abdominal ascites, frequent coughing and straining. Recurrence of GER symptoms should always be looked into after fundoplication, as recurrent hiatus hernia is not an uncommon complication of laparoscopic antireflux surgery. Apart from barium swallow, upper gastrointestinal endoscopy can also diagnose the disease. The patient was assessed by Paediatric Surgical team and was confirmed to have intact fundoplication. Medical therapy with proton pump inhibitor was started.

