



Chilaiditi Syndrome

An 8-year-old male was admitted with intermittent upper abdominal pain and constipation. His physical examination was normal. A plain abdominal radiograph showed gas between the liver and the diaphragm (**Figure, A**). Computed tomography demonstrated the

presence of interposed colonic loops between the right hemi-diaphragm and the liver with no free intraperitoneal air (**Figure, B**). The patient was diagnosed with Chilaiditi syndrome. Conservative management (a high fiber diet and laxatives) was recommended, and after 2 months he reported that his abdominal pain completely disappeared.

This entity was first described by Demetrius Chilaiditi in 1910.¹ It is a manifestation of hepato-diaphragmatic interposition of the bowel, usually involving the transverse colon. Chilaiditi sign has an incidence of 0.025%-0.28% worldwide with a male predominance (male to female, 4:1).^{2,3} In general, patients are asymptomatic, but some patients have been associated with gastrointestinal or respiratory symptoms such as abdominal and/or chest pain. This anatomical variant may be confused with more serious conditions such as pneumoperitoneum and diaphragmatic hernia. Plain radiographs demonstrate gas between the liver and the diaphragm; rugal folds within the gas suggest that it is within the bowel and not free. If there is a clinical suspicion of abdominal visceral perforation and plain radiographic appearances are unclear, abdominal computed tomography can clarify whether there is pneumoperitoneum.

Conservative management is often sufficient in a child with symptomatic Chilaiditi syndrome.⁴ ■

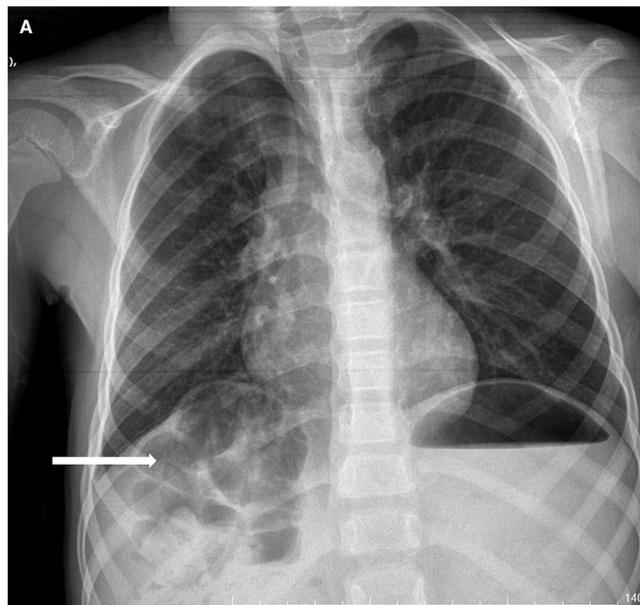


Figure. **A**, Plain abdominal radiograph showed gas between liver and diaphragm. **B**, Colonic interposition was observed at anterior of the liver.

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