

Chilaiditi's Syndrome

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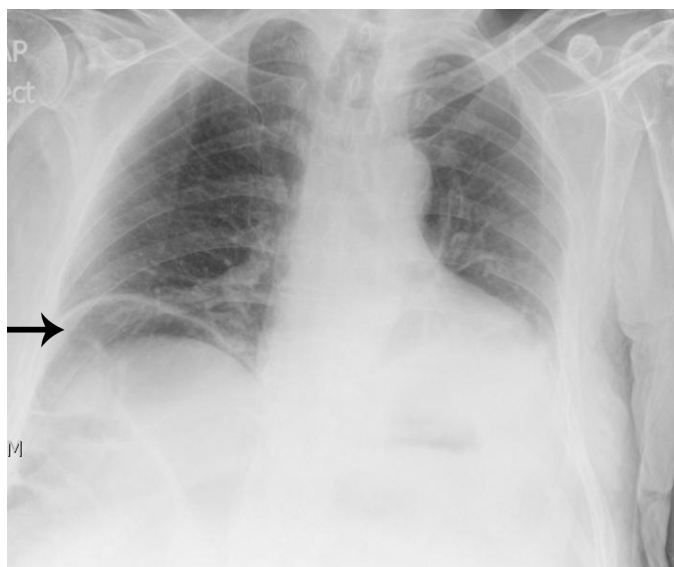


Figure. Chest radiograph suggestive of a pneumoperitoneum, with an elevated right hemidiaphragm and subdiaphragmatic free air.

A 58-year-old man presented to the Emergency Department with a two-day history of vomiting, diarrhea and intermittent central abdominal pain. His background history was significant for peptic ulcer disease. On examination there was diffuse abdominal tenderness, and a fecal occult blood test was positive. A departmental chest radiograph had appearances suggestive of a pneumoperitoneum, with an elevated right hemidiaphragm and subdiaphragmatic free air. The patient was referred to

the surgical team for management of a suspected perforated duodenal ulcer.

Subsequent CT imaging of thorax and abdomen revealed hepato-diaphragmatic interposition of the transverse colon, as well as extensive colitis. He was managed conservatively and discharged home well after four days.

Chilaiditi's sign is the appearance of free air under the diaphragm caused by interposition of the transverse colon between the liver and diaphragm. It is usually asymptomatic and is an incidental finding. It is estimated to occur in 0.25% to 0.28% of the general population¹ and was first described by Demetrios Chilaiditi in 1910.² When the sign is observed in association with symptoms such as abdominal pain or vomiting it is termed Chilaiditi's syndrome. It is in this scenario that the radiographic findings may be mistaken for pneumoperitoneum, as occurred in this case.

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