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THE CAPTIVATING CHILAIDITI - MORE THAN MEETS THE EYE

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Introduction:

Chilaiditi sign is a radiological finding when part of colon interposed in between liver and diaphragm. Patient may be asymptomatic and the sign picked up incidentally. However, in the presence of gastrointestinal symptoms and Chilaiditi sign, patient will be diagnosed as having Chilaiditi syndrome. Historically, it was first defined in 1910 by a radiologist, Demetrius Chilaiditi. It has a 0.025% to 0.28% incidence worldwide. Important differential diagnoses of this radiographic sign include pneumoperitoneum and subphrenic abscess (1–3).

Case report:

A 72 year-old gentleman with underlying gastritis and gout presented with 2 weeks history of abdominal pain associated with nausea, vomiting and generalized body weakness. Clinically he appeared pale with a tender and guarded epigastrium. Per-rectal examination was unremarkable. Chest x-ray showed Chilaiditi sign (Figure 1). Contrast-enhanced computed tomography abdomen and pelvis was done to clarify the presence of pneumoperitoneum (Figure 2). Radiologically, patient was diagnosed as Chilaiditi syndrome with possibility of duodenal injury. Exploratory laparotomy revealed bleeding perforated duodenal ulcer. Post-operatively, patient made an uneventful recovery.

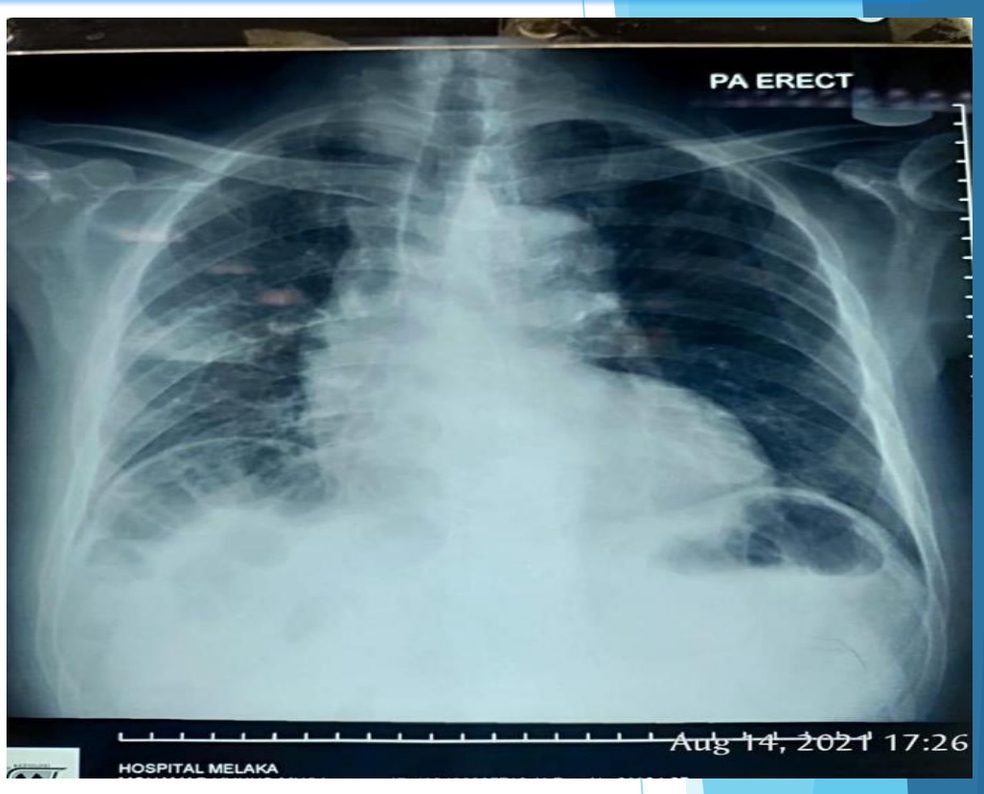

Figure 1

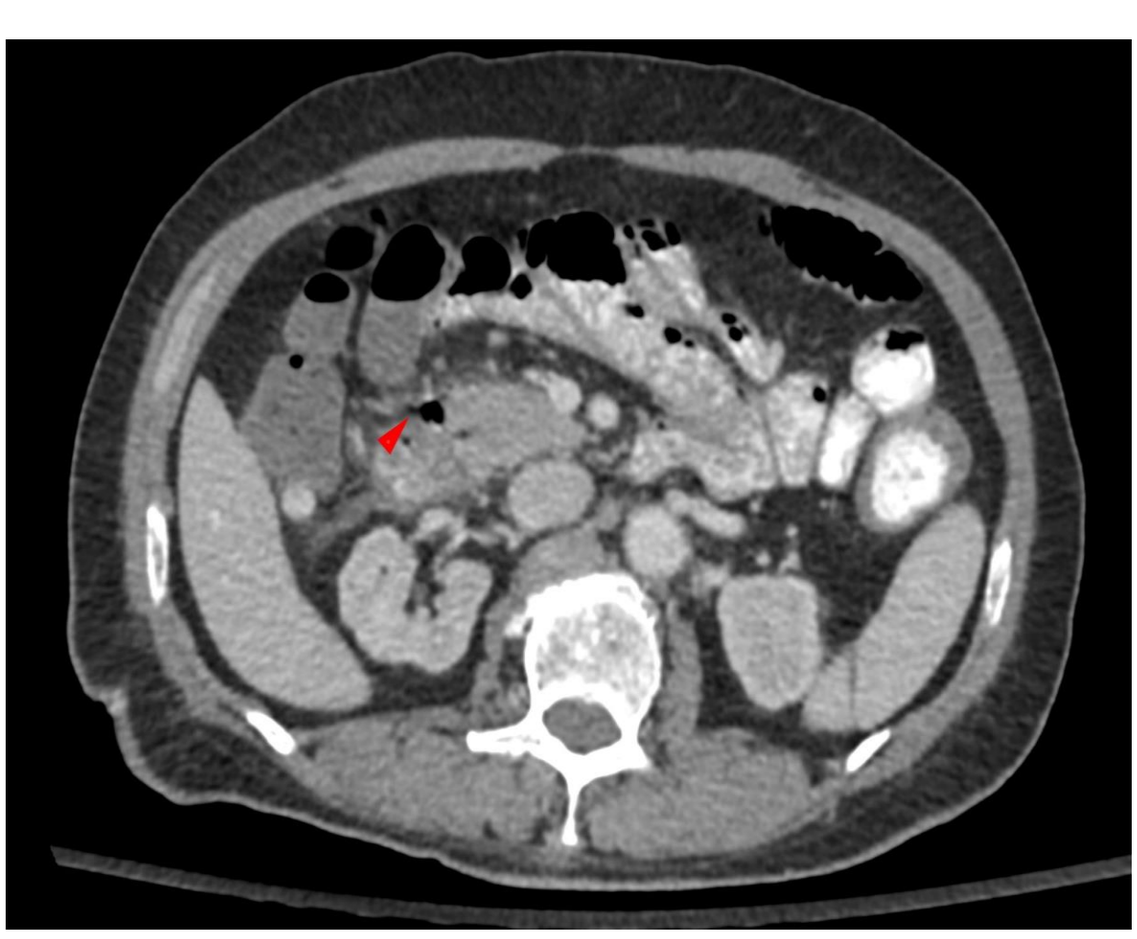

Figure 2:
Arrow showed locules of air seen between the head of pancreas and D2 segment of the duodenum, highly suspicious of pneumoperitoneum.

Discussion:

Chilaiditi sign which is interposition of the colon between the liver and diaphragm can be due to multiple causes such as anatomical variations of absence, laxity, or elongation of the suspensory ligaments of the transverse colon or the falciform ligament and congenital malposition. In symptomatic case, other causes of acute abdomen must be rule out such as perforated viscus (1–4). However, it is rare to have bowel perforation as a complication of this syndrome (2). Diagnosis of Chilaiditi syndrome is made based on various imaging modalities such as x-ray and computed tomography (CT) scan. Treatment is indicated in symptomatic patient and mostly conservative. Rarely patient require surgical intervention and it is only indicated in failure of resolution of symptoms following conservative treatment(1–4). For our patient, exploratory laparotomy was performed as patient had persistent gastrointestinal symptoms and positive abdominal sign.

Conclusion:

Chilaiditi syndrome is a rare condition and can be intriguing encounter. However, for patient with symptoms, clinicians should consider potential life-threatening condition such as perforated viscus. It is important to remember common thing occurs commonly.

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Declaration of conflict for all authors:

The authors declare that there are no conflict of interests.

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