Chilaiditi syndrome mimicking congestive heart failure

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Accepted 12 June 2017

DESCRIPTION

An 85-year-old man presented with orthopnoea and dyspnoea, symptoms of which were suspicious for heart failure. He was in respiratory distress and oxygen saturation was 85% on 4 L oxygen. On initial assessment, lungs were clear and heart sounds were normal. What was immediately evident was a distended abdomen. Digital rectal examination revealed hard faeces in rectum. He had a history of chronic constipation and last bowel movement was over 5 days ago.

Chest X-ray (figure 1) showed raised diaphragms with loops of large bowel interposed between the right hemidiaphragm and liver. An abdominal X-ray (figure 2) confirmed faecal impaction. Brain natriuretic peptide, d-dimer and echocardiogram were normal. He eventually underwent manual evacuation following failure of oral laxatives and enemas (figure 3 for follow-up chest X-ray).

This chest X-ray shows Chilaiditi sign (CS), a rare anomaly where bowel lies between the liver and right diaphragm. CS may be congenital or acquired. Chronic constipation is a recognised cause of acquired CS. Other acquired causes are cirrhosis, raised intra-abdominal pressure and diaphragmatic paralysis.[1] CS is asymptomatic but when causing symptoms, the term Chilaiditi syndrome is used.[1–3] Chilaiditi syndrome is a great mimicker since patients may present with signs and symptoms that imitate various medical and surgical emergencies. Initial chest X-ray showed our patient's lungs critically compressed by the distended loops of bowel underneath his diaphragms and this was conceivably the cause of his respiratory distress, similar to dyspnoea associated with ascites.

Initial management includes laxatives but surgical intervention may be indicated if bowel obstruction or perforation ensues.[1 2]

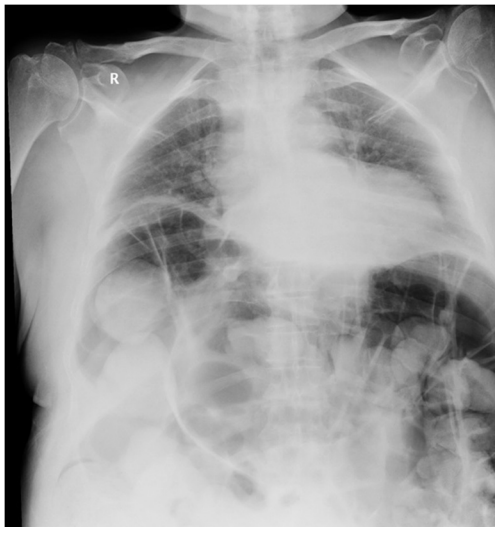

Figure 1 Chest X-ray on presentation showing Chilaiditi sign and lungs compressed.

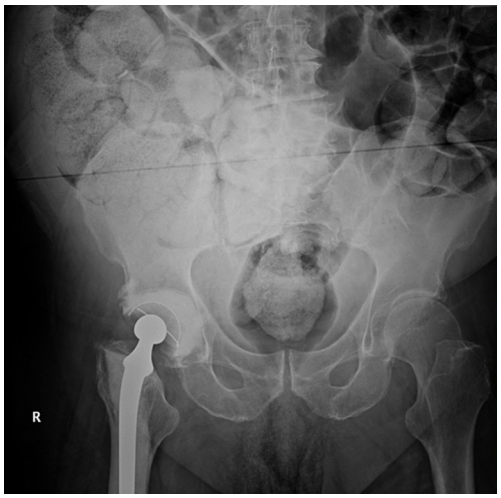

Figure 2 Abdominal X-ray on presentation showing faecal impaction.

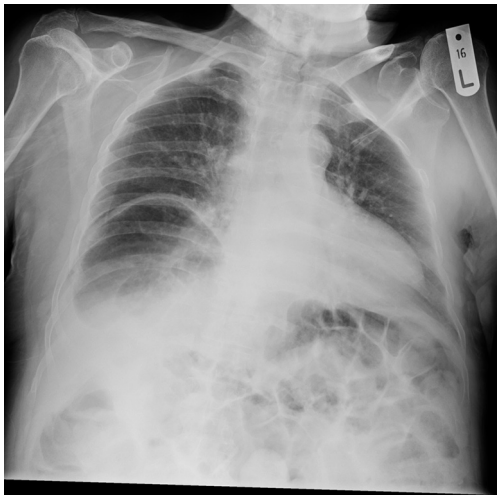

Figure 3 Chest X-ray showing improvement after manual evacuation.

Acknowledgements The author would like to thank Dr. Paula Hickey (Consultant Geriatrician, Sligo University Hospital, Sligo, Ireland), who oversaw the care of the patient from admission till discharged.

Contributors JOO: admitting doctor, conception, acquisition of data, write-up of the case, referencing.

Competing interests None declared.

To cite: Okiro JO. *BMJ Case Rep* Published Online First: [*please include* Day Month Year]. doi:10.1136/bcr-2017-220811

Learning points

- In patients with respiratory distress and incidental Chilaiditi sign, it is important to consider Chilaiditi syndrome as a cause for sudden deterioration as prompt bowel decompression would be paramount.
- Though rare, Chilaiditi syndrome may be associated with severe complications if diagnosis is overlooked.

Patient consent Obtained from next of kin.

Provenance and peer review Not commissioned; externally peer reviewed.

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