 DOI: http://doi.org/10.4038/jmj.v29i1.35

CASE REPORT

Chilaiditi's syndrome: A rare cause of non-specific epigastric pain

Roeshanthan, S[1], Jayathilaka, J.P.K[2], Jegavanthan, D[2], Kumarathunga, PADM[2], Kularatna, W.K.S[2], Pathman, M[1], Premathilaka, P.N.S[1],

Summary

A 63 year-old known patient with Epilepsy and pituitary macroadenoma, underwent transphenoidal adenectomy and on replacement came with acute symptoms of fever with productive cough and intermittent epigastric pain. On examination, there were signs of lower respiratory tract infection. Chest x-ray revealed interposition of colon between diaphragm and liver. Based on the clinico- radiological findings, a diagnosis of Chiladitis syndrome was made and his current symptoms were managed conservatively.

Background

Chilaiditi's syndrome is a rare condition, with an incidence of 0.25 0.28% , caused by interposition of colon or small intestine in the hepato - diaphramatic space. Due to its varying clinical presentations, the diagnosis of the disease is often missed causing increased morbidity and mortality. This case emphasizes on the importance of correlating clinical features with radiological findings in patients presenting with symptoms of lower respiratory tract infection.

Case report

Mr G S, a 63year old gentleman, from Kandy presented with acute fever accompanied by productive cough for 5 days duration. It was a low grade fever, not associated with chills or rigors. He did not have past history or contact history of tuberculosis or complaints of hemoptysis. He also had intermittent epigastric pain associated with indigestion, nausea and vomiting for the last 3 months. However, he did not have any constitutional symptoms, hematemesis, or abdominal discomfort. In addition, he had undergone pituitary adenectomy for microadenoma and on hydrocortisone and thyroxine hormone replacement for a long period and antiepileptic medications for his childhood epilepsy.

On general examination, he was febrile and moderately dehydrated. Respiratory system examination revealed bilateral basal coarse crepitation more prominent during inpiration than expiration. Other examinations were unremarkable except mild epigastric tenderness.

Investigation

Blood investigation revealed full blood count of 15200 with 90% neutrophils, Hb of 13.5g/dl and Platelet- 156,000 micro/ L, CRP- 187 g/dl and ESR-68mm. His UFR, TSH, S creatinine, AST, ALT, ALP, S Protein and CECT chest - abdomen- Pelvis were normal except for the presence of interposition of colon in hepato- diaphragmatic space and pneumonic shadows in bibasal lung fields.

[1]*Registrar in medicine, General Medical wards, Teaching Hospital Kandy*
[2]*General Medical wards, Teaching Hospital Kandy*

Differential Diagnosis

Pneumo-peritoneum, or diaphragmatic hernia

Treatment

He was treated with parental antibiotics, oral omeprazole and domperidone. He achieved almost complete recovery following the treatment.

Discussion

Chilaiditisis is a condition caused by the anterior interposition of the colon reaching the under-surface of the right hemi-diaphragm simulating pneumo-peritoneum. It is an incidental radiologic finding, first described by a Greek radiologist in 1910 . The sign of Chilaiditis could be epigastric tenderness. Diagnosis is usually made by radiological findings of interposition of colon in between Liver and diaphragm. There are wide spectrums of symptoms that may range from mild, nonspecific, intermittent abdominal pain to very severe intestinal obstruction or volvulus. The most common symptoms are gastrointestinal such as abdominal pain, nausea, vomiting and constipation followed by respiratory distress and less often angina like chest pain. However, respiratory distress in adult is occasionally reported.

Colonic interposition is usually an asymptomatic radiologic sign and presence of pain helps in differentiating this condition from asymptomatic colonic interposition. In the evaluation of a symptomatic patient with small bowel obstruction, clinicians should first exclude the more serious condition of pneumoperitoneum . Moreover, Chilaiditi's syndrome can be primarily misdiagnosed as a diaphragmatic hernia. On the other hand, a misdiagnosis of bowel perforation could also be made which may lead to unnecessary surgical intervention.

Management includes conservative and surgical depending on mild and severe life threatening conditions respectively. Initial management of Chilaiditi's syndrome consists of bed rest, intravenous fluid therapy, bowel decompression, enemas, and laxatives. If the patient does not respond to initial conservative management, and either the obstruction fails to resolve or there is evidence of bowel ischemia, then surgical intervention is indicated[4].

Take home message:

Even though Chilaiditi's sign occurs very rarely, this challenging diagnosis should be considered when a patient presents with abdominal and/or respiratory symptoms and has a radiologic finding of air below the right diaphragm.

References

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