

Chilaiditi Syndrome-A Case Report with Review on Literature

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Abstract : Chilaiditi syndrome is a rare condition which occurs due to transpositioning of a loop of transverse colon between right hemidiaphragm and liver¹. It is a rare entity in which patient presents with pain abdomen, vomiting and features of small bowel obstruction. It is often asymptomatic & presents as an incidental finding on chest x-ray or plain x-ray of abdomen known as chilaiditi's sign². We present a case of 48 year old male with chilaiditi syndrome and review literature regarding presence of chialditi syndrome.

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I. Introduction

Chilaiditi syndrome is a rare condition occurring in 0.025% to 0.28% of the population with male to female ratio 4:1^{3,4}. In these patients, there is displacement of transverse colon between the liver and the right hemidiaphragm⁵. Patients presents with features of acute intermittent bowel obstruction. Complications include volvulus, perforation, and bowel obstruction⁶. It is often misdiagnosed in clinical practice being a rare entity.

II. Case report

A 48 year old male presented in emergency department with pain in abdomen, vomiting and constipation, unable to pass flatus/motion since three days. His pulse rate was 112/min and blood pressure 128/88 millimeter mercury. On examination abdomen was found to be distended. Resuscitation was done with iv fluids, nasogastric decompression.

X ray FPA showed dilated large bowel with multiple air fluid levels with loop of large bowel present just below right diaphragm. Sonography revealed multiple dilated bowel loops with sluggish peristalsis and interbowel free fluid prompting the diagnosis to be intestinal obstruction.

Patient was immediately taken up for exploratory laparotomy. Intra operatively a loop of bowel was found twisted around the adhesions between liver and anterior abdominal wall.

III. Result

The post operative recovery was uneventful and patient was discharged on 10th post operative day and resumed his routine activities within 2 weeks.



IV. Discussion

Chilaiditi syndrome was first described clinically by Cantini in 1865 and it was established as a radiological diagnosis by Dmitri Chilaiditi⁷. It is a very rare condition which at times can present with intestinal obstruction. It may be due to absence of suspensory or falciform ligaments, redundant colon, malpositioning of the gut, paralysis of the right diaphragm⁸.

The differential diagnosis can be bowel obstruction, volvulus, intussusception, ischemic bowel, appendicitis or diverticulitis. Chilaiditi syndrome can also be misdiagnosed as a diaphragmatic hernia^{9,10}.

In our case the findings were features of large bowel obstruction warranting the need of immediate exploratory laparotomy. Intraoperatively, a loop of bowel was found twisted around adhesions between liver & anterior abdominal wall with no signs of perforation.

Sato et al. reported that ultrasound is helpful in diagnosing Chilaiditi syndrome. The cases can be diagnosed by X-ray and CT of abdomen which provides more detailed information. Ultrasound of abdomen is helpful in distinguishing between Chilaiditi's syndrome and pneumoperitoneum. The management of Chilaiditi syndrome includes both surgical and conservative modalities. Saber et al. reported that 26% of patients need operative management¹¹, while the majority required nonoperative treatment consists of bed rest, intravenous fluids, nasogastric decompression, enema and stool softener. Bowel decompression may be both diagnostic and therapeutic¹¹. Surgical intervention is indicated in bowel ischemia as was our case of obstruction from intestinal volvulus.

References

- [1]. Chilaiditi D. Zur frage der hepatoptose und ptose im allgemeinen im anchluss an drei fälle von temporärer, partieller leberverlagerung. Fortschritte auf dem Gebiete der Röntgenstrahlen. 1910;16:173–208
- [2]. Saber A.A., Boros M.J. — “Chilaiditi's syndrome: what should every surgeon know?” Am Surg. 71(3):261-263, 2005
- [3]. Kamiyoshihara M, Ibe T, Takeyoshi I. Chilaiditi's sign mimicking a traumatic diaphragmatic hernia Ann Thoracic Surg. 2009;87:959-61
- [4]. Prieto-Diaz-Chavez E, Marentes EJ, Medina CJ, et al. Síndrome de chilaiditi como un problema de decisión quirúrgica : reporte de un caso y revisión de la literatura. Cir Gen. 2007;29:294-6
- [5]. Jackson ADM, Hodson CJ. Interposition of the colon between liver and diaphragm (Chilaiditi's syndrome) in children. Arch Dis Child. 1957;32: 151–8
- [6]. Plorde JJ, Raker EJ. Transverse colon volvulus and associated Chilaiditi's syndrome: case report and literature review. Am J Gastroenterol. 1996;91:2613–2616
- [7]. BarroJornet JM, Balaguer A, Escribano J et al. Chilaiditi's syndrome associated with transeverse colon volvulus: first report in a pediatric patient and review of the literature. Eur J pediatric Surg. 2003; 13:425-8
- [8]. O. Moaven and R. A. Hodin, “Chilaiditi syndrome: a rare entity with important differential diagnoses,” Gastroenterology & Hepatology, vol. 8, no. 4, pp. 276–278, 2012
- [9]. Schneidau A, Baron HJ, Rosin RD. Morgagni revisited: a case of intermittent chest pain. Br J Radiol. 1982;55:238–240.
- [10]. Vallee PA. Symptomatic morgagni hernia misdiagnosed as Chilaiditi syndrome. West J Emerg Med. 2011;12:121–123.
- [11]. A. A. Saber and M. J. Boros, “Chilaiditi's Syndrome: What Should Every Surgeon Know?” American Journal of Surgery, Vol. 71, No. 3, 2005, pp. 261-263.

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