Incidental Finding of Chilaiditi Sign in a Nigerian Hypertensive: A Case Report.

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Summary

The patient was a 54 year old male Nigerian from Plateau State. He was a hypertensive on Moduretic who consulted BNO in January 2016 for forgetfulness and blood pressure control. Physical examination was negative but for severe hypertension of 230/140 mmHg in the supine position. Chilaiditi sign was noticed on chest X-ray requested as part of cardiovascular evaluation. We are reporting this as a rarity which has not been previously documented from Nigeria in medical literature to the best of our knowledge. Clinicians should be aware of this to avoid misdiagnosis of visceral rupture and unwarranted surgical intervention.

Key words: Chilaitiiti Sign, Incidental, Nigeria.

Introduction

In 1910, Demetrius Chilaiditi observed some incidental radiologic findings which appeared to be a rare variant in the oldered imaging findings in the normal abdomen. Usually the position of the hepatic flexure of the colon and the transverse colon is inferior to the liver. (1) Owing to space constraint in the abdominal cavity, and with the anterior abdominal wall intact and limiting space anteriorly coupled with the influence of some ligaments and mesenteries of the abdominal viscera, the relative position of the large and small intestines is generally constant. However, some factors can cause the colon or to a lesser degree the small intestine to interpose between the liver and the diaphragm. This is called the Chilaiditi sign referred to as the Chilaiditi syndrome when there are associated pathologic symptoms. It is rare (incidence of 0.025 to 0.28%) with male preponderance, and seems to increase with age. (2) No case of this to the best of our knowledge was encountered in medical literature from Nigeria. Ability to recognize it is necessary to avoid unnecessary surgical intervention except when there are complications of this syndrome. It is for this purpose that we report this case

Case Report.

The patient is a 54 year old male Nigerian from Plateau State. He was hypertensive and using Moduretic for treatment when he consulted BNO in January 2016 for forgetfulness and blood pressure control only. Physical examination was negative except for severe hypertension of 230/140 mmHg in the supine position. As part of investigations, a chest

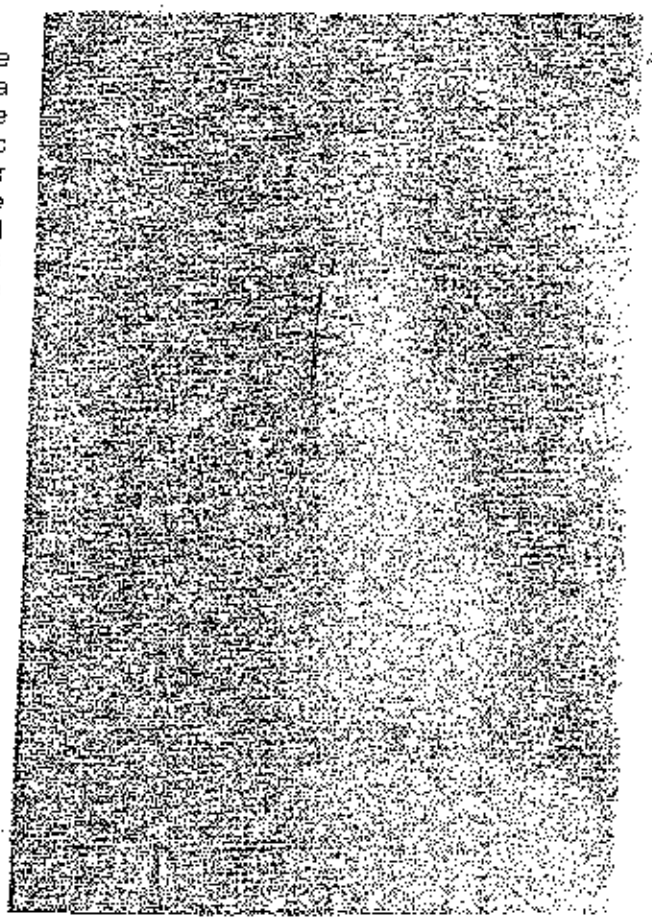

Figure 1

Figure: This a Chest X ray of the patient. The upper single arrow points to the wavy right dome of the diaphragm. The lower double arrow points to the superior margin of the liver and the upper tip of the star points to the lusceney of the colonic gas.

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X-ray was requested which showed colonic gas trapped between the wavy right dome of the diaphragm and superior margin of the liver (See Figure 1). This was reported as Chilaiditi's sign by the radiologist (JEE).

Discussion

A small group of people who come for routine chest and abdominal radiographs in the hospital have part of the colon, small intestine and caecum interposed between the liver and the diaphragm. Usually they are asymptomatic and these findings are mainly incidental. On occasions they may present with such symptoms as abdominal pain, nausea, vomiting, constipation, respiratory distress or chest pain. Such cases may go on to have complications like volvulus of the caecum, transverse colon or splenic flexure (3); but perforation may also be a sequelae. Our patient had none of these. Chilaiditi's sign is ordinarily innocuous, but its presence may point to an unwanted situation or be a risk for more complex complications. The need to be conversant with this feature is to avoid unwanted surgical interventions in search of a perforated viscus misdiagnosed due to a lucency seen below the dome of the diaphragm. It is also important to avoid unnecessary interventions to the liver which may result in catastrophic gut perforation. Correct diagnosis therefore should be predicated on unambiguous separation between the diaphragm and the liver. The superior margin of the liver lies below the level of the diaphragmatic dome with the hypodense area which does not change with patient position. (4)

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