

A rare cause of ileus: Morgagni hernia defect in case of emergency

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Abstract

Morgagni Hernia is a congenital defect seen in 2% of the population and develops from agenesis of the diaphragmatic crus and costal and sternal parts. This pathology may not cause any symptoms and therefore may not be diagnosed until adulthood. In this case report, the reduction and repair of the defect with graft of a patient who was evaluated in the emergency room with ileus and developed incarceration of the omentum and colon due to Morgagni hernia is described. We aimed to point out that this rare congenital diaphragmatic hernia should be considered in the diagnosis of patients presenting to the emergency department with ileus.

Keywords: Diaphragmatic hernia, morgagni, strangulation.

INTRODUCTION

Morgagni hernia is a congenital defect seen in 2% of the population and develops from agenesis of the diaphragmatic crus and costal and sternal parts (1,2). Patients are usually asymptomatic after birth. They may not cause any symptoms and therefore may not be diagnosed until adulthood. In symptomatic patients, symptoms may be mild or moderate substernal pain. In severe pain, it can be seen in strangulated or incarcerated patients. The sac that forms in a Morgagni hernia is a true sac. Although the contents of the sac consist mostly of the omentum alone, intestinal contents may rarely be found (3).

In this case report, the reduction and repair of the defect with graft of a patient who was evaluated in the emergency room with ileus and developed incarceration of the omentum and colon due to Morgagni hernia is described.

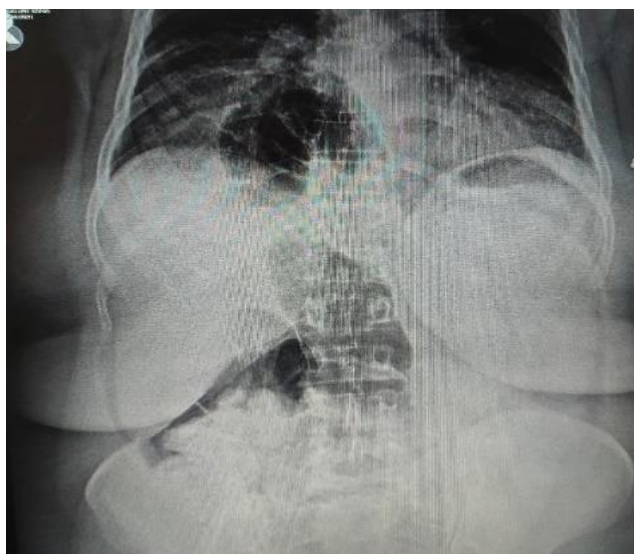


Figure 1. Standing abdomen X-Ray; Air-fluid levels

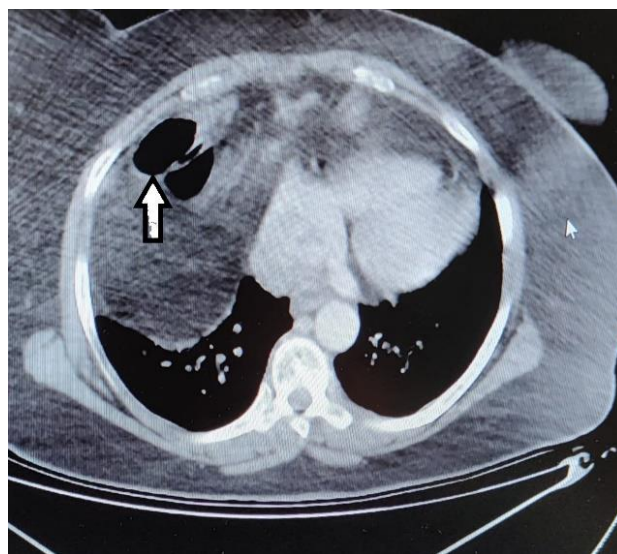


Figure 2. Toracoabdominal CT; Strangulated omentum and segment of transvers colon

CASE REPORT

A 50-year-old female patient applied to the emergency department with the complaint of sudden onset of abdominal pain on the same day. She has been followed up with the diagnosis of multiple myeloma for about 6 years. On physical examination, there was epigastric tenderness and defense. The patient had similar complaints several times before and it lasted for a short time. In blood tests, there is neutrophil dominance in the hemogram; CRP and routine biochemistry tests were found to be within normal values. Intestinal loop and air-fluid level were present in the thoracic area on direct X-ray (Figure 1). In thoracoabdominal CT, omentum and colonic loop were seen in the right hemithorax (Figure 2). Because of the acute abdomen findings in the physical examination of the patient, emergency surgery was decided. Laparotomy was performed with an abdominal midline incision. On exploration, most of the omentum and a short segment of the transverse colon were herniated from a defect in the anterior part of the diaphragm to the right hemithorax. The transverse colon was easily reduced by traction and taken into the abdomen, and no circulatory disorder was observed. While the omentum was reduced and taken into the abdomen, partial resection of the

omentum was also performed due to adhesions. The defect was repaired with non-absorbable suture and dual mesh was placed on it. Thoracoscopy was performed for control purposes by the thoracic surgeon. No pleural defect was observed. A 32 f tube was placed and the abdomen was closed after bleeding control.

Oral feeding was started on the second postoperative day of the patient. Thoracic tube was removed on the third postoperative day. She was discharged on the sixth postoperative day and no early complications developed.

DISCUSSION

Morgagni herniation was first described by an Italian anatomist-pathologist working on the cadavers of patients who died due to head trauma (4). It usually occurs due to defective fusion of the right-sided septum transversarium with the costal arches across the retrosternal space or Larrey space.

Most adult diaphragmatic herniations result from chronic hiatal hernias or diaphragmatic herniations. Morgagni herniation, which is one of the non-traumatic retro-costoxiphoid hernias, is less common in adult patients, but it is estimated to be approximately 1-5% of all congenital diaphragmatic hernias (5, 6). In a case series in the literature review, it is predicted that factors such as obesity, pregnancy, chronic constipation and chronic cough that increase intra-abdominal pressure adversely affect the herniation of the abdominal contents (7). The most serious complication of Morgagni herniation is incarceration or strangulation of prolapsed abdominal contents (8, 9). Morgagni hernia does not cause clinical complaints in the early period, so it may cause delays in diagnosis. It is usually detected incidentally on imaging in adults (10). Because patients present with vague respiratory (cough, sputum and shortness of breath) and digestive system (nausea, vomiting, subcostal pain, pain after meals or rarely acute intestinal obstruction) symptoms and signs (11). In this case, the patient applied to the emergency department with the complaint of abdominal pain, and intestinal obstruction findings were found in the examinations.

Since Morgagni hernia is a radiographically verifiable disease, a mass containing solid areas or fluid levels is usually observed in the retrosternal space at the cardiophrenic angle on the lateral radiograph. However, diagnosis may be particularly difficult when the only radiographic finding is an anterior cardiophrenic angle abnormality with no evidence of bowel gas patterns in the chest. In this case, CT scanning has become more popular in the age of multi-modal imaging in terms of differential diagnosis (12,13). In the direct X-ray of our patient taken in the emergency room, intestinal ans showing air-fluid leveling in the thorax was seen.

Morgagni hernia can be repaired with thoracic and abdominal access. Compared to the thoracic approach, the abdominal approach is more preferred (2). Although we have laparoscopic experience in diaphragmatic hernias in our clinic, open-abdominal surgery was performed in our case because the patient had lung problems and was operated on during night shifts.

CONCLUSION

Morgagni hernia should always be kept in mind in uncertain abdominal and pulmonary symptoms and potentially life-threatening situations such as strangulation or incarceration of intra-abdominal organs. We think that this case of a rare diaphragmatic hernia, which we treated with correct diagnosis and appropriate surgical intervention under emergency conditions, will be useful to the literature.

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