Bilateral Morgagni Hernia in Adult

Erişkinde Bilateral Morgagni Hernisi

Bilateral Morgagni Hernisi / Bilateral Morgagni Hernia

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Bu çalışma 20-24 Ekim 2010 tarihinde Antalya'da TUSAD 32.Ulusal Kongresinde EP-093 olarak sunulmuştur.

Özet

Morgagni hernisi konjenital anterior diyafram hernisidir. Genellikle çocukluk çağında ve sağda görülmesine rağmen, nadiren erişkinde ve bilateral görülür. Bilgisayarlı tomografi, erişkinde asemptomatik olan bu lezyonların tanısında yardımcıdır. Bu yazıda, nefes darlığı nedeniyle değerlendirilen ve bilateral morgagni tanısı konulan 65 yaşında erkek hasta sunulmuştur.

Anahtar Kelimeler

Morgagni Hernisi; Bilateral; Cerrahi

Abstract

Morgagni hernia is a congenital anterior diaphragma hernias. Although it generally seen in childhood and on the right side, rarely seen bilaterally and adult. Computarize tomography is helpful in diagnosis for this lesions asymptomatic in adult. In this article, bilaterally morgagni hernia diagnosed a sixty-five year old male patient looked for due to dyspne was presented.

Keywords

Morgagni Hernia; Bilaterally; Surgery

DOI: 10.4328/JCAM.880 Received: 25.12.2011 Accepted: 01.02.2011 Printed: 01.03.2015 J Clin Anal Med 2015;6(2): 240-242
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Introduction

Morgagni hernia developing with passage of the intraabdominal organs from the retrosternal diaphragmatic defect to the thorax has been decrsibed first in 1769 [1]. It is seen at the right side in the most cases (90%), although it has been reported at the left side in 8% of the cases and bilateral at 2% of the cases [2]. The conditions increasing the intraabdominal pressure such as the obesity and serious effort are reported to play a rol in developing of the hernia, particularly in the adult age group.

Case Report

A 65 years old male patient was evaluated because of the diaphgram height in the emergency department that he presented due to shortness of breath. On detection of the air at the right side below the diaphragm on the chest radiograph of the patients who had not any trauma or operation history. On the CT imaging examination of the patient, herniation of the column loops, omentum and left liver lobe at the right hemithorax as well as the herniation of the omentum and column loops at the left hemithorax was defined (Figure 1). We planned

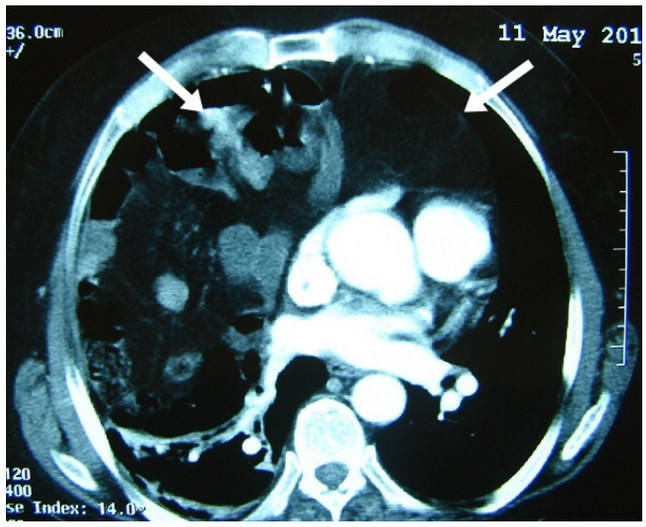


Figure 1. View of the intraabdominal content herniated to the thorax at both side in the retrosternal area on CT sections

laparoscopic surgery for our patient with presumed diagnosis of bilateral morgagni hernia. Intraoperatively, patient underwent laparotomy due to the adhesions. On the exploration, after releasing the adhesion, morgagni hernia and sac were dedected on both sides with larger at the right side (Figure 2). The sac

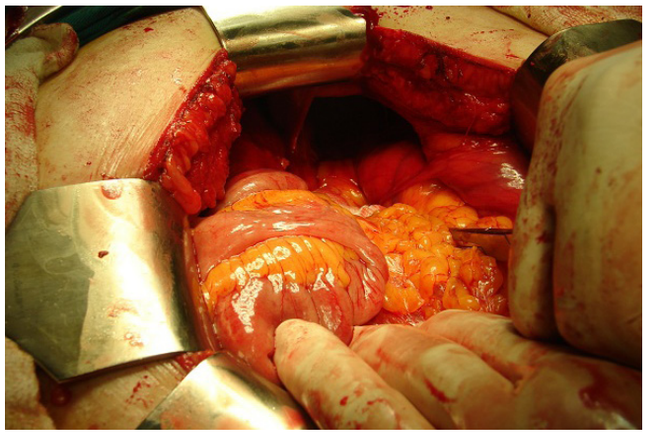


Figure 2. Bilateral Morgagni, the view after the hernial contents were reduced during the operation

contents were emptied, hernia sacs were removed and the diaphgram was primary sutured at both sides. The postoperative period was uneventful.

Discussion

The classical congenital diaphragm hernias (Bochdalek hernia) are account for nearly 80% of all the congenital diaphragm hernias, whereas morgagni hernia constitutes about 3-4% of the diaphragm hernias in the children and adults [2]. Comer and Clagett have reported the morgagni hernias with the incidence of 3% in their diaphragm hernia series of 1750 cases in 32 years [3]. Whereas bilateral morgagni hernia is quite uncommon among all the diaphragm hernias. Only 2% of the morgagni hernias are bilateral [2]. Although this uncommon pathology is usually congenital, the patients mostly are identidied at an advanced age. Loong reported 47 of the morgagni hernia patients were child and 93 were adults [4].

Because of the adult patients are usually asymptomatic, the cases are often defined incidentally. Of the adults, 72% of the symptomatic patients have gastrointestinal system related symptoms due to hernia content and the pulmonary symptoms are in the forefront in 36% of the patients [5]. The symptoms are associated with the size of the hernia defect and the organs passed to the chest cage. The herniated organs are mostly omentum, small bowel and stomach. The main symptoms are coughing, shortness of breath and chest pain. Morgagni hernia usually progresses with the pulmonary symptoms in the children. Cyanoses in the childhood period is an important symptom. In the cases of the bowels herniated to the thorax, bowel sounds may be heard on the chest auscultation. Specially in the childhood period, morgagni hernias may be accompanied by the anomalities such as Down's syndrome, omphalocele, congenital heart diseases, Turner symdrome, genitourinery system anomalities and absence of the pericardium [6].

In the differential diagnosis, pericardial fat pad occupying a place in the retrosternal area, mediastinal lipoma, pathologics belong to medium lobe of the lung, diaphragmatic tumors and cysts, thymoma and chest wall tumors as well as the pathologies such as the diaphragm eventration and traumatic diaphragm hernies should be considered [7].

The treatment of the morgagni hernia is surgery. When the morgagni hernia is defined, the surgery should be carried out in the elective conditions. In the cases of the acute respiratory distress, intestinal obstruction, perforation, incarceration and peritonis emergency surgery must be performed. The mortality and morbidity are low as to be negligible, particularly in the elective cases. However, if the asymptomatic patients with advanced age will not be able to tolerate the surgery because the serious comorbidities, they can be followed up.

The method of choice in the morgagni hernias primarily should be transabdominal surgery. The hernia sac can be readily seen and repaired by pulling its content to the abdomen with the transabdominal surgery. This method is superior, esspeccially in the large and complicated hernias. Furthermore, laparotomy must be the method of choice in the emergency cases and the cases may have complications. Laparoscopally repair of the morgagni has been introduced after 1990s because its advantages [8]. Successful results are obtained with this method in

the cases of the non-complicated hernias. The advantages of the laparoscopic surgery are the better postoperative comfort, faster recovery, minimal invasive process and less gastrointestinal complaints [8]. In their article, Loong et al. reported that any complication was not seen in 25 patients with laparoscopic repair performed, but the complications such as pleural effusion, wound infection, pulmonary embolism and deep vein thrombosis were seen in 61 patients undergone laparotomy [4].

Transthoracic approach is a method that can be considered as to the case in the signle sided hernias due to its advantages. In their serie of 16 cases Kılıç et al. [9] reported all the patients recovered without any problem and did not experience any problem during the postoperative period, there was not any recurrence and the symptoms were completely regressed with the thoracic approach. They underlined the advantages of this approach as the readily separation of the pericardial adhesions, easy repair of the hernia sac and a wide field of view. If the diagnosis is not definitive in the preoperative period, transthoracic approach should be preferred considering the possible intrathoracic pathologies. However, the thoracotomy pain, chest tube and related pleural complications and longer length of stay in the hospital are the disadvantages of this approach. In addition, pneumonia and sepsis are the important complications in the postoperative period in the patients undergone thoracotomy [4]. Although some authors suugest the hernia sac should be removed during the operation, the others emphasize it must be kept [4]. Massive pneumomediastinum is reported to be formed when the sac is removed, but it should be remember that cystic formations recurring with the locular hallow may be occurred if the sac is kept. The synthetic patches may be required to be used as the size of the defect in the diaphragm, but primary repair with prolene sutures may be sufficient at the small hernias [3,4,8]. We also preferred the primary repair with the non-absorbable sutures.

In conclusion, bilateral morgagni hernia is uncommon. Transabdominal approach should be the approache of choice with laparotomy or laparoscopically. Hernia reduction with the abdominal approach is easy, the complications related to the thoracotomy are not seen and the postoperative pain is less.

Competing interests

The authors declare that they have no competing interests.

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