



An Unusual Cause of Abdominal Discomfort

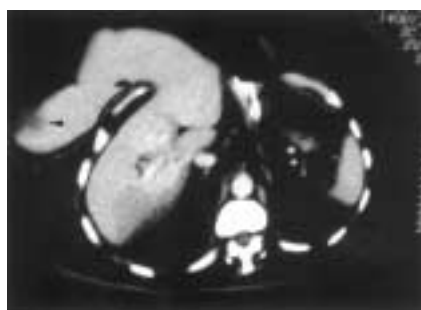
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Description

A 65 year old man presented with occasional abdominal pain. The patient reported episodes of mild abdominal discomfort, unrelated to meals or bowel movements. The symptoms, present for several years, were aggravated by maneuvers that increased intraabdominal pressure. There were no other gastrointestinal or systemic complaints. His past medical history included essential hypertension, severe progressive ankylosing spondylitis and an occasion of blunt abdominal trauma (while horse riding) in 1992.



Physical examination revealed severe ankylosing spondylitis and a large soft mass palpable in the mid-abdomen. Routine laboratory studies (including complete blood count, sedimentation rate and liver function) were all within normal range. The patient underwent an abdominal CT scan. What is the diagnosis?

Answer

The diagnosis is herniation of the left hepatic lobe through the abdominal rectus sheath. A simple cyst can be seen

at the tip of the herniated liver. Comparison with a previous CT scan from 1992 revealed that the liver herniation had progressed with the advancement of the ankylosing spondylitis.

Most cases of liver herniation are congenital anomalies diagnosed in infancy or even *in utero*. The majority of them are congenital diaphragmatic hernias with liver herniation into the chest [1–3]. In a minority of cases, the congenital anomaly is an abdominal wall defect with omphalocele [4].

In adults, most cases result from blunt trauma with diaphragmatic rupture leading to thoracic herniation of the liver [5–9]. Hepatic herniation through the abdominal rectus muscles is a very rare phenomenon. We found only one case report, which described a woman with abdominal herniated liver [10]. She denied any history of trauma and the only possibly related abnormality was hepatomegaly with non-alcoholic steato-hepatitis. The patient was treated conservatively.

The surgical option is usually considered according to the severity of the complaints. The patient described here has remained stable under routine clinical follow-up without any surgical intervention. Although the etiology remains unproven, we believe that in our patient both the ankylosing spondylitis (leading to deformed posture) and the blunt abdominal trauma contributed to the liver herniation.

References

1. Kluth D, Keijzer R, Hertl M, Tibboel D. Embryology of congenital diaphragmatic hernia. *Semin Pediatr Surg* 1996;5:224–33.

2. Metkus AP, Filly RA, Stringer MD, Harisson MR, Adzick NS. Sonographic predictors of survival in fetal diaphragmatic hernia. *J Pediatr Surg* 1996;31:148–52.
3. Harisson MR, Adzick NS, Flake AW, Vander-Wall KJ, Bealer JF, Howell LJ, Farrell JA, Filly RA, Rosen MA, Sola A, Goldberg JD. Correction of congenital diaphragmatic hernia in utero VIII: Response of the hypoplastic lung to tracheal occlusion. *J Pediatr Surg* 1996;31:1339–48.
4. Kamata S, Ishikawa S, Usui N, Kitayama Y, Sawai T, Okuyama H, Fukui Y, Kubota A, Imura K, Okada A. Prenatal diagnosis of abdominal wall defects and their prognosis. *J Pediatr Surg* 1996;31:267–71.
5. Kim HM, Shin YR, Kim KJ, Hwang SS, Ha HK, Byun JY, Choi KH, Shinn KS. Blunt traumatic rupture of the diaphragm: sonographic diagnosis. *J Ultrasound Med* 1997;16:593–8.
6. Murakami J, Hirai T, Kamiyoshihara M, Kawashima O, Endo K, Morishita Y. Right traumatic diaphragmatic hernia: a case report. *Kyobu Geka* 1996;49:508–11.
7. Fernandez-Gonzalez AL, Liorens R, Herreros JM, Cato J, Lecumberri F, Longo J. Blunt traumatic rupture of the right hemidiaphragm and Budd-Chiari syndrome. *Ann Thorac Surg* 1994;58:559–61.
8. Lorimer JW, Reid KR, Raymond FJ. Blunt extraperitoneal rupture of the right hemidiaphragm: case report. *Trauma* 1994;36:414–16.
9. Disler DG, Deluca SA. Traumatic rupture of the diaphragm and herniation of the liver. *Am Fam Physician* 1992;46:453–6.
10. Adeonigbagbe O, Ali K, Bradnock H. Herniation of the liver through the rectus muscle presenting as persistent abdominal pain. *Am J Gastroenterol* 2000;95:1841–2.

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