

Asymptomatic Umbilical Hernia in Liver Cirrhosis

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Abstract

Umbilical hernia is a life-threatening complication of liver cirrhosis. Herein, we demonstrated two interesting cases with liver cirrhosis that presented with asymptomatic umbilical hernia, but did not undergo any surgery.

Keywords: Umbilical hernia; Hepatocellular carcinoma; Liver cirrhosis

Introduction

Umbilical hernia is an abdominal wall complication of liver cirrhosis with gross ascites [1]. Most of cases with umbilical hernia are

asymptomatic, but some cases develop rupture or strangulation. In this paper, we reported two cases with liver cirrhosis presenting with asymptomatic umbilical hernia.

Case Report

A 76-year-old female with a 5-year history of liver cirrhosis was admitted to our hospital due to abdominal pain and distension for two days. She experienced an episode of variceal bleeding 3 years ago. She denied any history of viral hepatitis or alcohol abuse. On physical examination, there were remarkable abdominal tenderness without any rebounds, umbilical hernia, and positive shifting dullness. On laboratory tests, hemoglobin concentration was 107 g/L, platelets count was $73 \times 10^9/L$, total bilirubin was 25.8 $\mu\text{mol/L}$, aspartate aminotransferase 52.9 U/L, albumin was 20.8 g/L, and alpha-feto-protein was 83.9 IU/ml. White blood cell, alanine aminotransferase, blood urea nitrogen, creatinine, and prothrombin time/international normalized ratio were within the reference range. Hepatitis B virus antigen and hepatitis C virus antibody were negative. Contrast-enhanced computed tomography scans demonstrated a small hepatic nodule with enhancement at arterial phase (Figure 1A) and washout at venous phase (Figure 1B), moderate ascites, splenomegaly, and umbilical hernia (Figure 1C). So she was diagnosed with hepatocellular carcinoma with Child-Pugh class B. Considering that she had an advanced age, portal hypertension, and relatively poor liver function, surgical resection of hepatocellular carcinoma and surgical hernia repair were compromised. After conservative treatment with diuretics and albumin infusion, she was discharged.



Figure 1: Contrast-enhanced computed tomography scans in the first patient A. Hepatic nodule with hyper-enhancement at arterial phase B. Washout at venous phase C. Umbilical hernia

A 52-year-old male presented with intermittent abdominal distension for about 3 years and weakness and anorexia for one week. He had a 30-year history of alcohol abuse (500 g daily). Hepatitis B and C virus were negative. He had a 3-year history of alcoholic liver cirrhosis, a 4-year history of diabetes, and a 30-year history of chronic bronchitis. On physical examinations, there were mild icteric sclera, abdominal wall varices, umbilical hernia (Figure 2), inguinal hernia, mild edema of lower limbs, scrotal edema, wheezes in the lung, and

positive shifting dullness. On laboratory tests, white blood cell was $5.3 \times 10^9/L$, hemoglobin concentration was 110 g/L, platelets count was $98 \times 10^9/L$, total bilirubin was 46.6 $\mu\text{mol/L}$, albumin was 25.4 g/L, fasting blood glucose was 12.96 mmol/L, serum sodium was 131.9 mmol/L, creatinine was 90.18 $\mu\text{mol/L}$, blood urea nitrogen was 13.46 mmol/L, prothrombin time was 16.9 seconds, international normalized ratio was 1.42, and blood ammonia was 38 $\mu\text{mol/L}$. Blood gas analysis demonstrated that pO_2 was 82 mmHg (reference range: 83-100

mmHg) and pCO₂ was 35 mmHg (reference range: 35-45 mmHg). Axial computed tomography scans demonstrated ascites, mild bilateral pleural effusion, and splenomegaly (Figure 3). Liver stiffness was >45 kpa (reference range: 1-7 kpa). He was diagnosed with decompensated liver cirrhosis with Child-Pugh class C (10 points). Symptomatic treatment was given.



Figure 2: Abdominal sign in the second patient

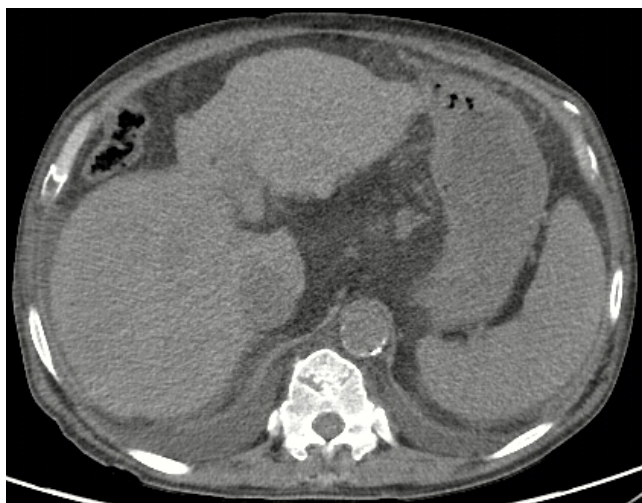


Figure 3: Plain computed tomography scans in the second patient

Discussion

As reviewed by Dokmak et al. [1] umbilical hernia repair was not indicated for a small (<5 cm) asymptomatic umbilical hernia with healthy skin coverage; by comparison, umbilical hernia rupture or strangulation require surgical repair. If necessary, elective surgery should be advocated. This consideration is primarily supported by the following fact. First, the rate of postoperative complications was higher in patients who underwent emergency umbilical repair [2]. Second, the rate of complications related to elective umbilical hernia repair was not significantly higher in cirrhotic patients than in non-cirrhotic patients [3]. Third, in a prospective study none of 30 cirrhotic patients with ascites who underwent elective umbilical hernia repair died of complications related to the umbilical hernia repair. Additionally, hepatic and renal function reserve should be fully noticed before surgery. In a retrospective study the patients who did not undergo herniorrhaphy had significantly worse hepatic and renal function than those who underwent herniorrhaphy [2]. Indeed, this consideration is largely consistent with the management of our case.

References

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