

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part B item 1223 (26.01.2017).
1223 Journal of Education, Health and Sport eISSN 2391-8306 7

© The Authors 2017;

This article is published with open access at Licensee Open Journal Systems of Kazimierz Wielki University in Bydgoszcz, Poland

Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited. This is an open access article licensed under the terms of the Creative Commons Attribution Non Commercial License

(<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited. This is an open access article licensed under the terms of the Creative Commons Attribution Non Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited.

The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 01.12.2017. Revised: 15.12.2017. Accepted: 23.12.2017.

Diffuse infiltrative hepatocellular carcinoma or cirrhosis?

Jarosław Koza, Maciej Świątkowski

Department of Gastroenterology and Nutrition Disorders, Nicolaus Copernicus University in Toruń, Faculty of Health Sciences, Collegium Medicum in Bydgoszcz, Poland

Corresponding author:

Jarosław Koza, Department of Gastroenterology and Nutrition Disorders,
University Hospital no. 2, Ujejskiego 75 Str, 85-168 Bydgoszcz, Poland;
e-mail: jaroslaw.koza@cm.umk.pl

Summary

The case of a patient whose imaging tests indicated liver cirrhosis is presented. The detailed diagnostic reveals advanced hepatocellular carcinoma (HCC). Alpha-fetoprotein and a blind liver biopsy was necessary. The authors conclude that in oncological surveillance of patients with cirrhosis, not only ultrasound but also AFP should be included.

Keywords: hepatocellular carcinoma, liver cirrhosis, HCC

Case presentation

The 57-year-old patient had appeared in the hospital emergency department due to the general weakness and pain in the right lower part of the chest lasting about 2-3 weeks. He lost weight unintentionally - several kilos in a few months (he was unable to specify values and period more precisely). In addition to the reported problems, so far he has not had other health disorders. He claimed he was not taking any medications. From unhealthy behaviors he confirmed only the occasional consumption of alcohol. There were no family burdens. In the physical examination, the liver was enlarged by a few centimeters and the palpable soreness of the ribs arches in the right part of the chest was confirmed. Chest x-rays showed the fracture of the fourth right rib. Ultrasound examination of the abdominal cavity revealed a nodal lesion in the hepatic hilar area in size of the 36 x 37 x 87 mm. There were no significant abnormalities in blood count. However abnormalities in lab liver tests was found: aspartate aminotransferase 82U/l (N<40), alanine aminotransferase 23 (N<41), gamma glutamyl transpeptidase 555 U/l (N<55), alkaline phosphatase 277 U/l (N<140), bilirubin 0,99 mg/dl (N<1,20). Therefore, an abdominal CT was performed stating the liver enlarged to 247 mm in the mid-clavicular line with irregular margin and nodular structure, with an enlarged caudate lobe - the image suggested liver cirrhosis. Moreover, the lymph node bundle between the aorta and the inferior vena cava, spleen enlargement, metastases to the ribs and thoracic spine but also portal vein thrombosis, were diagnosed. Symptomatic treatment of reported complaints and anticoagulant therapy due to thrombosis had begun. The diagnostic procedures were continued. The alpha-fetoprotein test showed a remarkably high value (6701 ng / ml, N <7.0). Endoscopic examination of the upper and lower gastrointestinal tract did not reveal the possible site of the onset of neoplastic disease. A blind biopsy of the liver from two different sites was performed - both of them confirmed the cancer cells. The patient was qualified for further oncological treatment.

Discussion

Liver cirrhosis is a disease that predisposes to hepatocellular carcinoma (HCC). Thus, the cirrhotic patients must be under the surveillance towards the possible occurrence of hepatocellular carcinoma. It is realized by performing ultrasound every 6 months [1]. Some studies shows cirrhosis diagnosed at the same time as HCC. Many patients did not realized the fact of liver chronic diseases until advanced HCC is confirmed [2]. Macroscopically, HCC can be monofocal, multifocal or in the form of diffuse infiltrative cancer - extensive, occupying almost the whole organ. Because there is no typical tumour, this type macroscopically often resembles cirrhosis [3, 4, 5]. Moreover it is important difficulty due to frequency – infiltrative HCC makes up 23% of all hepatocellular carcinomas [5]. Nodular lesions in the liver in the presented patient, and especially the enlargement of the caudate lobe, contributes to radiological relevant suspicion of liver cirrhosis, without explicitly identifying the tumor [6]. AFP was very suggestive and a blind biopsy of the liver revealed the diffuse infiltrative form of HCC.

Conclusion

Although surveillance guidelines for patients with cirrhosis require abdominal ultrasound every six months, without alpha-fetoprotein examination, it should be taken into account that the suitability of this form of surveillance in case of diffuse infiltrative cancer is very limited. Therefore, the presented case justifies reconsidering the inclusion of combined AFP and ultrasound for screening.

References:

1. Koza J, Orłowski K, Jurgoński A, Meder A, Pujanek M, Ameryk M et al. Screening for hepatocellular carcinoma. *Journal of Education, Health and Sport*. 2017; 7 (11): 152-161.
2. Walker M, El-Serag HB, Sada Y, Mittal S, Ying J, Duan Z, et al. Cirrhosis is underrecognised in patients subsequently diagnosed with hepatocellular cancer. *Aliment Pharmacol Ther*. 2016; 43 (5):

621-30.

3. Kneuertz PJ, Demirjian A, Firoozmand A, Corona-Villalobos C, Bhagat N, Herman J et al. Diffuse infiltrative hepatocellular carcinoma: assessment of presentation, treatment, and outcomes. *Ann Surg Oncol*. 2012;19 (9): 2897-2907.
4. Reynolds AR, Furlan A, Fetzer DT, Sasatomi E, Borhani AA, Heller MT et al. Infiltrative hepatocellular carcinoma: what radiologists need to know. *Radiographics*. 2015; 35 (2): 371-86.
5. Andrzejewska M, Pacho R, Małkowski P. Diagnostyka radiologiczna raka wątrobowokomórkowego. *Przegl. Epidemiol*. 2006; 60: 741–748.
6. Walas M, Skoczylas K, Gierbliński I. Błędy i pomyłki w diagnostyce ultrasonograficznej wątroby, pęcherzyka żółciowego i dróg żółciowych. *Journal of Ultrasonography* 2012; 12: 446–462.