Epigastric Pain in a Patient with Cirrhosis

Ying C. Lee^{*,‡}, Yi C. Yeh^{†,‡}, Yi Y. Chiou^{*,‡}, Chieu A. Liu^{*,‡}, Nai C. Chiu^{*,‡}

^{*}Taipei Veterans General Hospital, Department of Radiology, Taiwan, [†]Taipei Veterans General Hospital, Department of Pathology, Taiwan and [‡]National Yang-Ming University, School of Medicine, Taiwan

(J CLIN EXP HEPATOL 2017;7:161–162)

An 83-year-old man with past history of hepatitis C presented with acute onset epigastric pain for 3 days. He was diagnosed with liver cirrhosis mainly by images study, and had not received treatment for hepatitis. Laboratory analysis revealed mild hypoalbuminemia (3.5 g/dL) with no other abnormalities. Dynamic computed tomography was performed, showing a heterogeneous soft tissue mass in left hepatic lobe, arterial enhancement (Figure 1, arrow) and venous phase washout (Figure 2, arrow), with linear patchy calcification at the sigmoid colonic wall (Figure 3, arrow). The patient received liver biopsy because of diffuse heterogeneous liver parenchyma. The pathologic findings (Figure 4, arrow) revealed a moderately differentiated hepatocellular carcinoma. In

addition, several calcified eggs (Figure 5, arrow) are identified in portal area, which are consistent with the diagnosis of Schistosomiasis.

Schistosomiasis has been associated with liver disease and colorectal cancer. The major species that cause hepatobiliary disease are *Schistosoma mansoni* and *S. japonicum*. Symptoms of hepatic Schistosomiasis include hepatomegaly, hepatic fibrosis and portal hypertension, which may overlap with intestinal Schistosomiasis symptoms. Intestinal Schistosomiasis most commonly involved the colon, associated with granuloma and fibrosis, resulting from ova deposition, presenting the classic radiologic features of linear patchy calcification on the colonic wall.^{1,2} It may initiate a chronic granulomatous inflammatory reaction, block the venules, increase cell turnover, and promote carcinogenesis. Co-infection of hepatitis C and Schistosomiasis prolonged the carriage state and more often resulted in chronic hepatitis. There is a synergistic association between hepatitis C and Schistosomiasis for liver fibrosis.³ According to recent report,⁴ there is significant higher proportion of HCC in patients co-infected with hepatitis C and Schistosomiasis (61.3% vs. 38.7%). Those HCC presented in patients co-infected with hepatitis C and Schistosomiasis, tend to be multifocal and are larger in size. It was considered that the combination of chronic

Figure 1 Dynamic computed tomography was performed, showing a heterogeneous soft tissue mass in left hepatic lobe, arterial enhancement (arrow).

Keywords: hepatocellular carcinoma, Schistosomiasis

Available online: 7 October 2016

Address for correspondence: Nai Chi Chiu, Division of Gastrointestinal Radiology, Department of Radiology, Taipei Veterans General Hospital, No. 201, Sec. 2, Shih-Pai Rd, Taipei 11217, Taiwan. Tel.: +886 2 2875 7350; fax: +886 2 2876 9310.

E-mail: dontnike@gmail.com

Abbreviations: *S. japonicum*: *Schistosoma japonicum*; *S. mansoni*: *Schistosoma mansoni*

<http://dx.doi.org/10.1016/j.jceh.2016.09.017>

Figure 2 Dynamic computed tomography was performed, showing a heterogeneous soft tissue mass in left hepatic lobe, venous phase washout (arrow).

Figure 3 Dynamic computed tomography was performed, showing linear patchy calcification at the sigmoid colonic wall (arrow).

Figure 5 The pathologic findings, several calcified eggs (arrow) identified in portal area, which are consistent with the diagnosis of Schistosomiasis.

Schistosomiasis and hepatitis B virus or hepatitis C virus may cause a higher risk of hepatocellular carcinoma.⁵

CONFLICTS OF INTEREST

The authors have none to declare.

REFERENCES

1. Zhang W, Wang PJ, Shen X, et al. CT presentations of colorectal cancer with chronic Schistosomiasis: a comparative study with pathological findings. *Eur J Radiol.* 2012;81(8):e835–e843.
2. Monzawa S, Uchiyama G, Ohtomo K, Araki T. Schistosomiasis japonica of the liver: contrast-enhanced CT findings in 113 patients. *AJR Am J Roentgenol.* 1993;161(2):323–327.
3. Abruzzi A, Fried B, Alikhan SB. Coinfection of *Schistosoma* species with Hepatitis B or Hepatitis C viruses. *Adv Parasitol.* 2016;91:111–231.
4. El-Tonsy MM, Hussein HM, Helal Tel S, Tawfik RA, Koriem KM, Hussein HM. Human Schistosomiasis mansoni associated with hepatocellular carcinoma in Egypt: current perspective. *J Parasit Dis.* 2016;40(3):976–980.
5. El-Tonsy MM, Hussein HM, Helal Tel S, Tawfik RA, Koriem KM, Hussein HM. *Schistosoma mansoni* infection: is it a risk factor for development of hepatocellular carcinoma? *Acta Trop.* 2013;128(3):542–547.

Figure 4 The pathologic findings revealed a moderately differentiated hepatocellular carcinoma (arrow).