Kaohsiung Journal of Medical Sciences (2015) 31, 496–497

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: http://www.kjms-online.com

LETTER TO THE EDITOR

Laparoscopic approach is the treatment of choice for sclerosing angiomatoid nodular transformation of the spleen

To the Editor,

Sclerosing angiomatoid nodular transformation (SANT) of the spleen is a newly defined benign spleen lesion. SANT is a rare disease first described by Martel et al. [1] in 2004. Fewer than 100 cases have been reported [2]. SANT is often asymptomatic and found incidentally. Although there are some characteristic image features for diagnosis, final diagnosis can only be confirmed by immunohistochemistry [3].

A 57-year-old Taiwanese woman who suffered from high fever came to the emergency department asking for help. After a series fever survey, abdominal computed tomography (CT) revealed a 3.5 cm × 3.1 cm splenic tumor. She denied any gastrointestinal tract discomfort such as abdominal pain, poor appetite, diarrhea, nausea or vomiting. Her laboratory data were normal except for mild anemia. She denied any recent body weight loss, tarry stool or alterations of bowel habits. A stool occult blood study was also negative.

In the arterial phase of her CT scan, the tumor was peripherally enhanced with radiation. In the delayed phase, the tumor showed progressive enhancement. A hypoenhanced center was noticed in both the arterial and delayed phase (Figures 1A and 1B). There was no imaging evidence of lymphadenopathy.

Because the risk of malignancy could not be totally excluded, laparoscopic splenectomy was performed. The pathology report described a demarcated tumor mass in which a fibrotic and sclerosing background with multiple angiomatoid nodules of variable size were observed (Figure 1C). These nodules contained slit-like small vessels and sinusoids, with abundant plasma cells and histiocytes (Figure 1D). The sinusoids in these nodules were highlighted by CD8 stain, and small vessels were highlighted by CD31 and CD34 stains. The final diagnosis was sclerosing angiomatoid nodular transformation.

Some typical image features of SANT may help us make this rare diagnosis and differentiate it from other splenic tumor lesions such as hemangiomas, hamartomas, angiosarcomas, or lymphomas. In contrast-enhanced CT or magnetic resonance imaging, heterogeneously hypoenhancing and peripheral enhancement can be noted in the arterial phase. In the delayed phase, progressive central enhancement in a radiating pattern causes a so-called spoke wheel appearance. In T2 weighted images, the lesions are hypointense [4].

However, theses imaging findings are not always seen, as in our case, and it is difficult to completely exclude the risk of malignancy. Therefore, these patients usually require splenectomy for both diagnosis and treatment [5]. Compared to traditional open laparotomy, laparoscopic splenectomy is a less invasive method. SANT is a non-neoplastic disease, and lymph node dissection is not necessary. Thus, the operation time is almost the same in open and laparoscopic splenectomy. SANT is a curable lesion; almost all patients can recover without recurrence after either laparoscopic or open splenectomy.

In conclusion, laparoscopic splenectomy is the treatment of choice for SANT. Compared with open splenectomy, the laparoscopic approach shortens hospitalization days, cuts down medical expense, has fewer wound complications and offers a better cosmetic outcome. Although SANT is uncommon, this rare disease may be encountered incidentally during imaging studies. When the impression of SANT is reached, laparoscopic splenectomy should be the treatment of choice based on the above considerations.

Conflicts of interest: All authors declare no conflicts of interests.

http://dx.doi.org/10.1016/j.kjms.2015.05.002

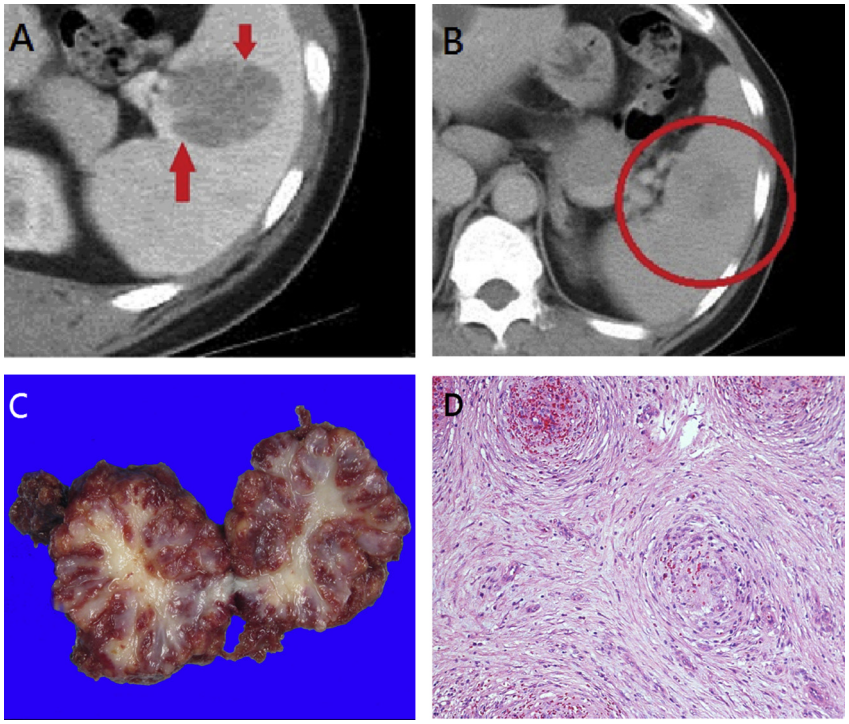

Figure 1. (A) Arterial phase enhanced computed tomography (CT) image shows heterogeneous hypoenhancement and peripheral enhanced radiation lines (arrows). (B) Delayed phase CT image shows progressive heterogeneous enhancement. (C) On gross examination, the specimen is a solitary and well demarcated mass showing a white fibrosclerotic central scar with spoke-shaped fibrous strands. (D) Histopathology findings: multiple angiomatoid nodules with various sized slit-like small vessels and sinusoids (hematoxylin and eosin stain, original magnification × 100).

References

[1] Martel M, Cheuk W, Lombardi L, Lifschitz-Mercer B, Chan JK, Rosai J. Sclerosing angiomatoid nodular transformation (SANT): report of 25 cases of a distinctive benign splenic lesion. Am J Surg Pathol 2004;28:1268—79.

[2] Kim HH, Hur YH, Koh YS, Kim JC, Kim HJ, Kim JW, et al. Sclerosing angiomatoid nodular transformation of the spleen related to IgG4-associated disease: report of a case. Surg Today 2013;43:930—6.

[3] Pradhan D, Mohanty SK. Sclerosing angiomatoid nodular transformation of the spleen. Arch Pathol Lab Med 2013;137:1309—12.

[4] Lewis RB, Lattin Jr GE, Nandedkar M, Aguilera NS. Sclerosing angiomatoid nodular transformation of the spleen: CT and MRI features with pathologic correlation. AJR Am J Roentgenol 2013;200:W353—60.

[5] Wang HL, Li KW, Wang J. Sclerosing angiomatoid nodular transformation of the spleen: report of five cases and review of literature. Chin Med J (Engl) 2012;125:2386—9.

Yen-Cheng Chen
Jian-Wei Huang
Wen-Lung Su
Wen-Tsan Chang
Kung-Kai Kuo*
Department of Surgery, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan

*Corresponding author. Chung-Ho Memorial Hospital, Kaohsiung Medical University, 100 Shih-Chuan 1st Road, Kaohsiung, Taiwan.
E-mail address: kkkuo@cc.kmu.edu.tw (K.-K. Kuo)