IDCases 17 (2019) e00583

Contents lists available at ScienceDirect

IDCases

journal homepage: www.elsevier.com/locate/idcr

Case illustrated

Recurrent massive ascites three months after liver autotransplantation

Xianwei Yang[a,1], Xintao Zeng[a,b,1], Wentao Wang[a,*]

[a] Department of Liver Surgery and Liver Transplantation Center, West China Hospital of Sichuan University, Chengdu, PR China
[b] Department of Hepatobiliary and Pancreatic Surgery, Mianyang Central Hospital, PR China

ARTICLE INFO

Article history:
Received 7 March 2019
Received in revised form 26 June 2019
Accepted 26 June 2019

Keywords:
Alveolar echinococcosis
Tuberculosis
Liver autotransplantation
Ascites

A 20-year-old woman with advanced hepatic alveolar echinococcosis (HAE) underwent liver autotransplantation [1] successfully 3 months prior to admission. Large-volume ascites (Fig. 1) was revealed by ultrasonography five days prior to admission. She was treated with an abdominal drain and about 900 mL pale-yellow liquid was drained daily. Serum total protein (TP) was 62.9 g/dL and serum ascites albumin gradient (SAAG) was 6.7 g/dL. Left hepatic vein-inferior vena cava anastomotic stenosis was questionably diagnosed after excluding small-for-size syndrome (SFSS). And, she was treated tentatively stent implantation. The ascites, however, continues to increase, accompanied by pleural effusion and intermittent fever (38.5–40.8 °C). Laboratory evaluation showed hemoglobin 57 g/dL, white blood cell counts 5.48×10^9 cells/uL, TP 56.5 g/dL, elevated procalcitonin (11.37 ng/mL), SAAG 15.3 g/dL, and negative results of tuberculosis antibodies and *Mycobacterium tuberculosis* DNA (TB-DNA) from pleural fluid, ascites, and sputum. Pleural fluid examination revealed elevated lactate dehydrogenase (5329 IU/L) but normal adenosine deaminase (64.1 IU/L). Repeated sputum culture showed no positive results for acid-fast bacilli, and T-spot test was suspected positive. No tuberculous lesions were found in the peritoneum or pleura via endoscopy. Venous angiography showed a smooth outflow of the liver. Therefore, it was chosen to begin a diagnostic anti-tuberculosis treatment after other antimicrobial treatments were ineffective [2]. Two months later, the ascites, fever and pleural effusion disappeared completely, and the TB-DNA was positive from pleural fluid and ascites. The diagnosis of secondary tuberculous peritonitis and acute miliary tuberculosis was suggested on CT (Fig. 1). She continued to receive standardized anti-tuberculosis treatment and continued follow-up (>18 months).

HAE is a severe neglected tropical disease [3], known as 'worm cancer'. Liver autotransplantation is one of the effective treatments for end-stage HAE. SFSS and vascular stenosis are common complications after liver autotransplantation, but the most difficult is refractory infection. The patient had no history of tuberculosis and did not require immunosuppressive therapy after autotransplantation, so she was at lower risk of tubercular infection. Due to long-term recurrent fever, ascites and pleural effusion, the patient was in a state of heavy malnutrition, increasing the risk of tuberculosis [2]. Therefore, in this case, diagnostic anti-tuberculosis treatment was recommended after repeated diverse antimicrobial treatments were ineffective.

* Corresponding author at: Department of Liver Surgery, West China Hospital of Sichuan University, 37 Guoxue Road, Chengdu 610041, PR China.
E-mail address: wwtdoctor03@163.com (W. Wang).
[1] These authors contributed equally to this work.

https://doi.org/10.1016/j.idcr.2019.e00583

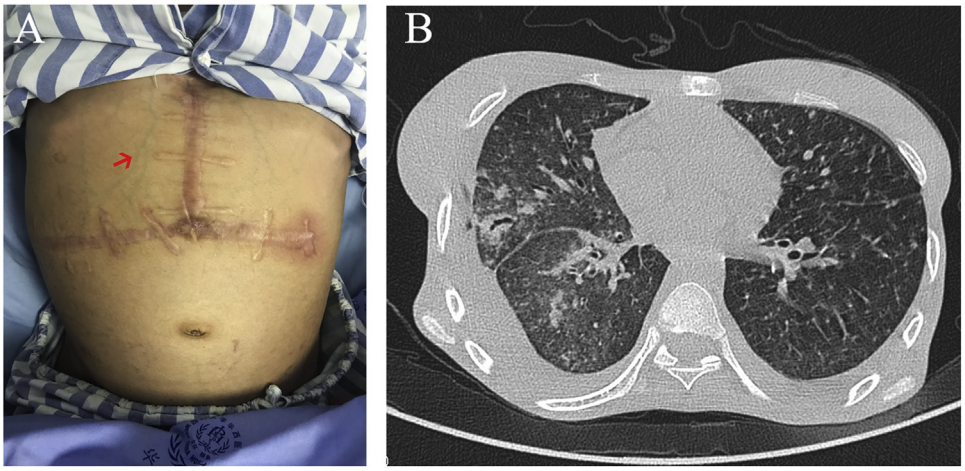

Fig. 1. Key points for patient evaluation before and after treatment. (A) The patient had a large amount of ascites, abdominal varicose veins (red arrow), and was suspected to be diagnosed as a narrow outflow of the liver. (B) Chest CT results showed typical characteristics of acute miliary tuberculosis.

Contributors

WW proposed the study. XY and XT performed the research and wrote the first draft. XY collected and analyzed the study data. All authors contributed to the design and interpretation of the study and to further drafts. The first author of this manuscript is XY and XT. Written informed consent was obtained from the patient for publication

Acknowledgments

This research was supported by the National Natural Science Foundation of China (No. 81770566) and founded by the New Medical Technology Foundation of West China Hospital of Sichuan University (No. XJS2016004).

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.idcr.2019.e00583.

References

[1] Yang X, Qiu Y, Huang B, Wang W, Shen S, Feng X, et al. Novel techniques and preliminary results of ex vivo liver resection and autotransplantation for end-stage hepatic alveolar echinococcosis: a study of 31 cases. Am J Transplant 2018;18:1668–79.
[2] Nahid P, Dorman SE, Alipanah N, Barry PM, Brozek JL, Cattamanchi A, et al. Official American Thoracic Society/Centers for Disease Control and Prevention/ Infectious Diseases Society of America Clinical Practice Guidelines: treatment of drug-susceptible tuberculosis. Clin Infect Dis 2016;63:e147–95.
[3] Yang GJ, Liu L, Zhu HR, Griffiths SM, Tanner M, Bergquist R, et al. China's sustained drive to eliminate neglected tropical diseases. Lancet Infect Dis 2014;14:881–92.