

Multiple spider angiomas in a patient with chronic hepatic graft-versus-host disease

Ying Gu, Kun Li, Xia Wu, Jian-Zhong Zhang

Department of Dermatology, Peking University People's Hospital, Beijing 100044, China.

To the Editor: Spider angiomas are benign vascular lesions mostly associated with decompensated liver cirrhosis. Here, we report multiple spider angiomas in a patient with chronic hepatic graft-versus-host disease (GVHD).

A 40-year-old man with acute myeloid leukemia received hematopoietic stem-cell transplantation (HSCT) 7 years ago. Five months after HSCT, he developed chronic hepatic GVHD. Hepatic GVHD was diagnosed by a hematologist according to abnormal liver function tests (LFTs), elevations in bilirubin. In recent 2 years, he noticed multiple red spots on the neck [Figure 1A], arms [Figure 1B and 1C], and upper trunk [Figure 1D]. Physical examination revealed multiple telangiectatic macules, characterized by central arteriole with radiated blood vessels. Compression of central area caused the entire telangiectasia to blanch. He also had tender gynecomastia. Laboratory findings included increase in total bilirubin 29.8 $\mu\text{mol/L}$ (normal value $<21 \mu\text{mol/L}$), direct bilirubin 15.1 $\mu\text{mol/L}$ (normal value $<7 \mu\text{mol/L}$), total bile acid 56.1 $\mu\text{mol/L}$ (normal value $<10 \mu\text{mol/L}$), alanine transaminase 48 IU/L (normal value $<40 \text{ IU/L}$), aspartate transaminase 65 IU/L (normal value $<40 \text{ IU/L}$), alkaline phosphatase 169 IU/L (normal value $<125 \text{ IU/L}$), gamma glutamyl transpeptidase 109 IU/L (normal value $<60 \text{ IU/L}$), and decrease in serum albumin 29 g/L (normal value $>40 \text{ g/L}$). Hepatitis B surface antigen (HBsAg) and hepatitis C virus (HCV) antibodies were both negative. Abdominal ultrasound revealed a nodular liver surface. Esophageal varices were not found. The patient denied the history of alcoholic hepatitis or viral hepatitis. He had no history of using suspected drugs which affected estrogen metabolism. He was diagnosed as spider angiomas associated to hepatic GVHD and was treated with systemic steroids. The abnormality of liver function was successfully controlled while the telangiectasia remained unchanged.

GVHD is a common complication of HSCT. It usually involves the skin, gastrointestinal mucosa and liver.

Hepatic GVHD has abnormal LFTs in a cholestatic pattern and usually has extra-hepatic manifestations.^[1] Although cirrhosis is a rare consequence of hepatic GVHD, patients with long-term abnormal LFTs are at high risk of developing cirrhosis secondary to GVHD.^[2] This patient had multiple spider angiomas with long-term abnormal LFTs, suggesting that the spider angiomas were related to hepatic GVHD.

Spider angioma is a vascular lesion characterized by anomalous dilatation of end vasculature slightly found beneath the skin surface. Single lesion of spider angiomas is seen in 10% to 15% of healthy children and young adults. Multiple spider angiomas can be found in women during pregnancy, or using oral contraceptive pills.^[3] Chronic liver disease is one of the most common causes. They are often seen in patients with alcoholic cirrhosis and in those with cirrhosis due to hepatitis C viral infection.^[4] The spider angiomas related to hepatic GVHD are rare.

The pathogenesis of spider angiomas is still unclear. The presence of spider angiomas is accompanied by an increased serum estradiol/free testosterone ratio in male cirrhotic. Elevated substance P levels, vascular endothelial growth factor, and basic fibroblast growth factor have also been reported in patients with spider angiomas. All of these cytokines play roles in vasodilation and angiogenesis.^[5]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient's guardians have given their consent for their images and other clinical information to be reported in the journal. The patient's guardians understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Access this article online

Quick Response Code:



Website:
www.cmj.org

DOI:
10.1097/CM9.0000000000000707

Correspondence to: Dr. Jian-Zhong Zhang, Department of Dermatology, Peking University People's Hospital, No. 11 South Street of Xizhimen, Xicheng District, Beijing 100044, China
E-Mail: rmzjz@126.com

Copyright © 2020 The Chinese Medical Association, produced by Wolters Kluwer, Inc. under the CC-BY-NC-ND license. This is an open access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

Chinese Medical Journal 2020;133(6)

Received: 2-09-2019 Edited by: Peng Lyu



Figure 1: Representative image of the patient. (A) Typical lesion with an arteriole in the central region that radiating “the legs of spider” were seen on the neck. (B–D) Multiple telangiectasias were present on the arms and upper trunk.

Conflicts of interest

None.

References

1. Norvell JP. Liver disease after hematopoietic cell transplantation in adults. *Transplant Rev* 2015;29:8–15. doi: 10.1016/j.trre.2014.08.001.
2. Wang Z, Lu CL, Wen MY, Yang L. Persistent abnormal liver function tests may predict development of cirrhosis in chronic hepatic graft-versus-host disease. *Clin Res Hepatol Gastroenterol* 2016;40:e19–e22. doi: 10.1016/j.clinre.2015.06.010.
3. Vedamurthy M, Vedamurthy A. Spider nevi: a presenting feature of chronic liver disease. *Indian J Dermatol Venereol Leprol* 2008;74:397–398. doi: 10.4103/0378-6323.42921.
4. Sood A, Gupta R, Midha V. A giant spider nevus in a patient of hepatitis C-related liver cirrhosis: A rare presentation. *Int J Appl Basic Med Res* 2015;5:206–207. doi: 10.4103/2229-516X.165373.
5. Yalcin K, Ekin N, Atay A. Unusual presentations of spider angiomas. *J Postgrad Med* 2013;33:487. doi: 10.1111/liv.12009.

How to cite this article: Gu Y, Li K, Wu X, Zhang JZ. Multiple spider angiomas in a patient with chronic hepatic graft-versus-host disease. *Chin Med J* 2020;133:749–750. doi: 10.1097/CM9.0000000000000707