



# Splenomegaly in Portal Hypertension

Li Yan and Hai-Bo Chu\*

Department of General Surgery, 89<sup>th</sup> Hospital of PLA, China

## Commentary

The traditional concept suggests that the splenomegaly of Portal Hypertension (PHT) is a passive congestive splenomegaly, and stasis secondary congestion is its pathologic feature [1,2]. The modern concept suggests that splenomegaly not only involves splenic congestion, but is also accompanied by congestion of splenic red pulp, vascular proliferation, fibrosis, lymphoid hyperplasia and activation [3-8]. In PHT, spleen angiogenesis can regulate the portosystemic collateral circulation and increase the spleen blood flow, which is an important pathologic and physiologic sign of the spleen [9]. If a spontaneous portosystemic shunt exists, it will not appear as splenomegaly. Thus, splenomegaly was hemodynamic compensatory personalization of PHT. Hypersplenism will occur after splenomegaly decompression [10,11]. In addition, the collateral vessels of splenic perisplenic ligaments (lienorenal ligament, splenophrenic ligament, and splenocolic ligament) are abundant in splenomegaly, thus a wide collateral circulation can be established in retroperitoneal and pericardial locations, and the spleen may be called a "shunt bridge", which was used in Warren surgery to divert blood flow from gastro-splenic region to achieve selective shunt depressurization [12].

## References

1. Jeker R. Hypersplenism. *Ther Umsch.* 2013;70(3):152-6.
2. McKenzie CV, Colonne CK, Yeo JH, Fraser ST. Splenomegaly: Pathophysiological bases and therapeutic options. *Int J Biochem Cell Biol.* 2018;94:40-43.
3. Chu HB, Liu X, Zhao JH, Xu Y, Wang L, Wang T, et al. Subtotal splenectomy for splenomegaly in cirrhotic patients. *Int J Clin Exp Pathol.* 2014;7(8):4981-90.
4. Chu HB, Zhang TG, Zhao JH, Jian FG, Xu YB, Wang T, et al. Assessment of immune cells and function of the residual spleen after subtotal splenectomy due to splenomegaly in cirrhotic patients. *BMC Immunol.* 2014;15:42.
5. Zhu X, Han W, Wang L, Chu H, Zhao J, Xu Y, et al. Penicillar arterioles of red pulp in residual spleen after subtotal splenectomy due to splenomegaly in cirrhotic patients: A comparative study. *Int J Clin Exp Pathol.* 2015;8(1):711-8.
6. Chen SR, Zhao JH, Wang L, Xu Y, Zhu S, Wang T, et al. Changes in nerve fibers and microvessel density in residual spleen after subtotal splenectomy due to portal hypertension. *Int J Clin Exp Pathol.* 2016;9(2):1557-67.
7. Yu D, Li Y, Xu YB, Tang J, Li K, Chu H. Dysregulated matrix metalloproteinases and tissue inhibitors of metalloproteinase in residual splenic tissue after subtotal splenectomy due to portal hypertension. *Int J Clin Exp Pathol.* 2017;10(2):1273-82.
8. Chu H, Han W, Wang L, Xu Y, Jian F, Zhang W, et al. Long-term efficacy of subtotal splenectomy due to portal hypertension in cirrhotic patients. *BMC Surgery.* 2015;15:89.
9. Achiwa S, Hirota S, Kako Y, Takaki H, Kobayashi K, Yamakado K. Radiological anatomy of spontaneous splenorenal shunts in patients with chronic liver disease. *Jpn J Radiol.* 2017;35(4):206-14.
10. Lv Y, Yee Lau W, Wu H, Han XY, Gong X, Liu N, et al. Causes of peripheral cytopenia in hepatic cirrhosis and portal hypertensive splenomegaly. *Exp Biol Med (Maywood).* 2017;242(7):744-9.
11. Han X, Lv Y, Li Y, Deng J, Qiu Q, Liu N, et al. Distribution characteristics of cells in splenomegaly due to hepatitis B-related cirrhotic portal hypertension and their clinical importance. *J Int Med Res.* 2018;46(7):2633-40.
12. Sharma N, Bajpai M, Kumar A, Paul S, Jana M. Portal hypertension: A critical appraisal of shunt procedures with emphasis on distal splenorenal shunt in children. *J Indian Assoc Pediatr Surg.* 2014;19(2):80-4.

## OPEN ACCESS

### \*Correspondence:

Hai-Bo Chu, Department of General Surgery, 89<sup>th</sup> Hospital of PLA, Weifang 261021, China,

E-mail: haibochuwf@163.com

Received Date: 20 Dec 2018

Accepted Date: 07 Jan 2019

Published Date: 09 Jan 2019

### Citation:

Yan L, Chu H-B. Splenomegaly in Portal Hypertension. *J Gastroenterol Hepatol Endosc.* 2019; 4(1): 1053.

Copyright © 2019 Hai-Bo Chu. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.