



## PHOTO CLINIC

# Portal Vein Thrombosis Following Splenectomy in $\beta$ -thalassemia Major

Sara Sadeghi<sup>1\*</sup>, Ahmad Mohammadi Ashiani<sup>1</sup>, Mitra Khalili<sup>2</sup>

<sup>1</sup>Pediatric Congenital Hematologic Disorders Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

<sup>2</sup>Pediatric Radiology Department, Shahid Beheshti University of Medical Sciences, Tehran, Iran

### ARTICLE INFO

#### Article History:

Received: 29.05.2016

Accepted: 01.07.2016

#### \*Corresponding author:

Sara Sadeghi,

Pediatric Congenital Hematologic Disorders Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

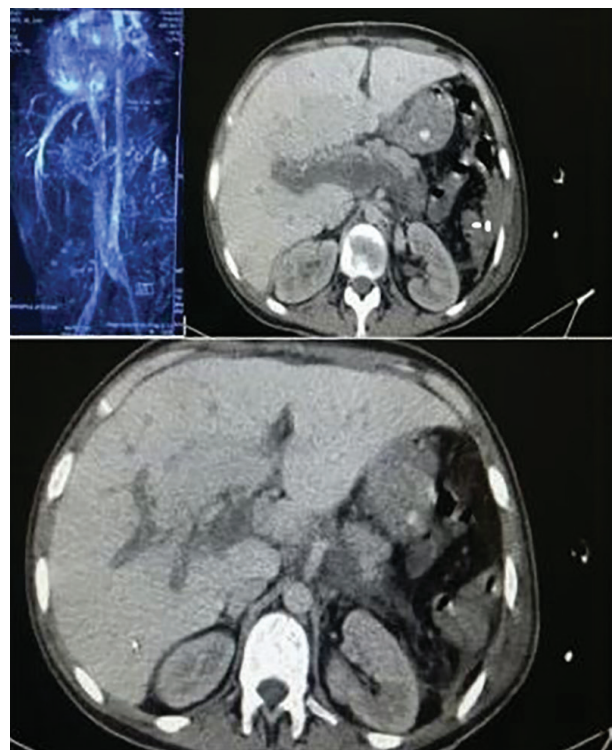
Email: [sadeghisaramd@gmail.com](mailto:sadeghisaramd@gmail.com)

Please cite this article as: Sadeghi S, Mohammadi Ashiani A, Khalili M. Portal Vein Thrombosis Following Splenectomy in  $\beta$ -thalassemia Major. IJBC 2016; 8(3): 90-91.

A 25-year-old man with thalassemia major underwent cholecystectomy and splenectomy due to persistent colicky abdominal pain and increased blood requirements. He was febrile during the week after splenectomy, so that a thoraco-abdominal CT scan was scheduled for the patient which revealed evidence of thrombosis in main portal vein, superior mesenteric vein and splenic vein. Ultrasound color Doppler confirmed extensive area of thrombosis in portal vein. MRV images did not show any flow in portal and splenic veins (figure 1).

Thromboembolic (TE) events have been frequently reported in  $\beta$ -thalassemic patients along with risk factors such as diabetes, cardiopulmonary dysfunction, hypothyroidism, liver function abnormalities and post splenectomy thrombocytosis.<sup>1</sup> Although a high prevalence of thromboembolic events in thalassemia intermedia, particularly in splenectomized patients has been reported (29%),<sup>2</sup> incidence of TEs has been reported to be from 1.1-5.3% in thalassemia major patients in different studies.<sup>1</sup>

Portal vein thrombosis is a well-known complication following splenectomy in beta thalassemia major.<sup>1</sup> Female gender, decreased levels of coagulation inhibitors, thrombocytosis and huge splenomegaly are predisposing factors for developing portal vein thrombosis. However, it is recommended that Doppler ultrasonography be performed in all patients after splenectomy to screen portal vein thrombosis.<sup>1</sup> We suggest that prophylactic



**Figure 1:** MRV images shows evidence of lack of flow in portal venous system. Abdominal CT-scan shows extensive thromboses in portal, mesenteric and splenic veins with cavernous transformation.

antiplatelet and antithrombotic therapy be considered in all thalassemic patients even before splenectomy.

**Conflict of Interest:** None declared.

### References

1. Borgna Pignatti C, Carnelli V, Caruso V, Dore F, De Mattia D, Di Palma A, et al. Thromboembolic events in beta thalassemia major: an Italian multicenter study. *Acta haematologica*. 1998;99(2):76-9.
2. Cappellini M, Robbiolo L, Bottasso B, Coppola R, Fiorelli G. Venous thromboembolism and hypercoagulability in splenectomized patients with thalassaemia intermedia. *British journal of haematology*. 2000;111(2):467-73.
3. Eldor A, Rachmilewitz EA. The hypercoagulable state in thalassemia. *Blood*. 2002;99(1):36-43.
4. Soyer T, Ciftci AO, Tanyel FC, Şenocak ME, Büyükpamukçu N. Portal vein thrombosis after splenectomy in pediatric hematologic disease: risk factors, clinical features, and outcome. *Journal of pediatric surgery*. 2006;41(11):1899-902.