



IMAGE OF THE MONTH

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FROM YOUNG ESPGHAN

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Liver biopsy and its complications: learnings from a case of sickle cell disease hepatopathy.

A 17-year-old girl was admitted due liver function derangement 1 year after liver transplantation for sickle cell disease (SCD) hepatopathy. An anastomotic biliary stricture was demonstrated on MRI and she underwent an ERCP with stent insertion. Due to ongoing liver dysfunction, she underwent trans-jugular liver biopsy which showed features consistent with moderate T cell mediated rejection. Her post procedural period was complicated by intermittent gastrointestinal tract a bleeding. A CT angiography revealed haemobilia (Figure 1), arterial pseudo-aneurysm in segment 7 and formation of arterioportal fistula (Figure 2). An emergency embolization (Figure 3) was performed which resulted in successful treatment of arterial pseudo-aneurysm and arterio-portal venous shunting. A repeat ERCP and stenting was also carried out.

Gastrointestinal bleeding after bile duct or liver manipulation such as liver biopsy should alert to the possibility of haemobilia. In SCD, liver biopsy is associated with increased risk of complications, particularly hemorrhage. Therefore, it should be considered only if the results are likely to materially affect management and via the trans-jugular route to minimize the risks of bleeding (1).

Learn more about SCD hepatopathy and role of liver biopsy in:

1. Suddle AR. Management of liver complications in sickle cell disease. Hematology Am Soc Hematol Educ Program. 2019;2019(1):345-50.
2. Kyrana E, Rees D, Lacaille Fet al. Clinical management of sickle cell liver disease in children and young adults. Arch Dis Child. 2021;106(4):315-20.
3. Zakaria N, Knisely A, Portmann B et al. Acute sickle cell hepatopathy represents a potential contraindication for percutaneous liver biopsy. Blood. 2003;101(1):101-3.
4. Lacaille F, Allali S, de Montalembert M. The Liver in Sickle Cell Disease. JPGN; 2021;72(1):5-10



Fig. 1: Dense material proximal to the stent indicates the presence of blood.

Fig. 2: Contrast enters the portal venules indicating AV fistula formation.

Fig. 3: Two coils are deployed into segment 7 of the liver with successful treatment of arterial pseudo-aneurysm and AV shunt.