

BUDD-CHIARI SYNDROME: AN UNCOMMON COMPLICATION IN POST-LIVER TRANSPLANTATION

Plaza Fernández A, Fernandez Carrasco M, Calvo Bernal M

TORRECÁRDENAS UNIVERSITY HOSPITAL, ALMERÍA.

Abstract

Budd-Chiari syndrome is a rare condition characterized by partial or complete obstruction of hepatic venous flow, which can present in either an acute or chronic form. Its etiology is classified as primary, associated with hematological disorders and hypercoagulability conditions, or secondary, caused by extrinsic venous compression or invasion. In this context, we present a case of acute Budd-Chiari syndrome as a vascular complication following a liver transplant.

Keywords: Budd-Chiari syndrome, hepatic veins, liver transplant, TIPS.

Introduction

Budd-Chiari syndrome is a rare condition characterized by partial or complete obstruction of hepatic venous flow, which can occur acutely or chronically. Its etiology is classified as primary, associated with hematological disorders and hypercoagulable conditions, or secondary, caused by extrinsic

venous compression or invasion. In this context, we present a case of acute Budd-Chiari syndrome as a vascular complication following liver transplantation.

Clinical Case

A 23-year-old patient with chronic liver disease secondary to Wilson's disease, recently transplanted with preservation of the vena cava or piggyback technique, without immediate postoperative complications. She came to the emergency room with abdominal distension that had been developing for 24 hours, without other associated symptoms. Laboratory tests revealed acute renal failure and impaired liver function with elevated cholestasis enzymes and coagulopathy. An urgent computed tomography (CT) scan was performed, revealing acute Budd-Chiari syndrome with thrombosis at the confluence of the vena cava and the suprahepatic veins (Figure 1), as well as a moderate amount of ascites. The case was presented to a multidisciplinary committee, which decided to initiate

Ana Plaza Fernández
Torrecárdenas University Hospital, Almería.
anplafdez@gmail.com

Plaza Fernández A, Fernandez Carrasco M, Calvo Bernal M.
Budd-chiari syndrome: an uncommon complication in post-liver transplantation
RAPD 2025;48(5):200-201. DOI: 10.37352/2025485.6

LETTER TO THE EDITOR

anticoagulation therapy and scheduled the placement of an endovascular prosthesis, which was ultimately not feasible due to technical difficulties. One week later, in the absence of improvement, a therapeutic approach was decided upon using a transjugular intrahepatic portosystemic shunt (TIPS), achieving TIPS patency and partial improvement of the thrombus. Finally, the patient was discharged in good clinical condition.



Figure 1. Enlarged liver graft with heterogeneous enhancement after contrast administration (congestive hepatopathy), showing a filling defect at the confluence of the vena cava and the suprahepatic veins.

Discussion

Budd-Chiari syndrome is a rare condition, in most cases associated with hematological disorders, and its presentation as a vascular complication of liver transplantation is exceptional. In this context, a possible relationship with the piggyback surgical technique has been proposed, so it should be included in the diagnostic algorithm for the immediate post-transplant period, especially in patients with decompensated ascites associated with impaired liver function.

The form of presentation is variable and depends on the extent of venous flow obstruction and the speed of onset. Secondary symptoms of liver failure are common. Diagnosis is based on Doppler ultrasound, with CT or MRI being necessary in some cases. With regard to treatment, it is essential to initiate anticoagulation immediately. In the absence of response to anticoagulation, a multidisciplinary approach is recommended to evaluate therapeutic options for restoring hepatic venous drainage, including transhepatic venous angioplasty, TIPS, or, in critical situations, liver retransplantation¹⁻⁴.

In conclusion, it is essential not to overlook this condition, although rare, but potentially fatal in the context of post-liver transplantation, in order to ensure appropriate clinical management. Thus, paradoxically, liver transplantation can be both the cause and the treatment of Budd-Chiari syndrome.

Bibliography

1. Grus T, Lambert L, Grusová G, Banerjee R, Burgetová A. Budd-Chiari Syndrome. *Prague Medical Report*. 2017;118(2-3):69-80.
2. Parekh J, Matei VM, Canas-Coto A, Friedman D, Lee WM. Budd-Chiari Syndrome Causing Acute Liver Failure: A Multicenter Case Series. *Liver Transpl*. 2017 Feb;23(2):135-42.
3. N, Damaskos C, Prevezanos D, Garmpi A, Georgakopoulou VE, Antoniou EA, et al. Liver transplantation and Budd-Chiari syndrome: When the cause becomes the solution. *MAEDICA (Bucur)*. 2022;17(2):415-9.
4. O'Grady JG. Budd-Chiari syndrome and acute liver failure: A complex condition requiring a rapid response. *Liver Transpl*. 2017 Feb;23(2):133-4.