

# Clinical Characteristics and Outcomes of Adults with Budd-Chiari Syndrome: A Single-Center Experience in Colombia

Ximena Morales-Cruz<sup>a</sup> Carolina Salinas<sup>b</sup> Geovanny Hernández-Cely<sup>b</sup> Cristina Torres<sup>b</sup> Martin Garzón<sup>b</sup> Rocio Lopez-Panqueva<sup>c</sup> Juan Manuel Pérez<sup>d</sup> Felipe Durán-Torres<sup>e</sup> Adriana Varón<sup>b</sup> Oscar Beltrán<sup>b</sup>

<sup>a</sup> School of Medicine and Health Sciences, Hepatology Program, Universidad del Rosario, Bogotá, Colombia; <sup>b</sup> Department of Hepatology, Fundación Cardioinfantil, Bogotá, Colombia; <sup>c</sup> Department of Pathology, Fundación Santafé, Bogotá, Colombia; <sup>d</sup> Department of Radiology, Fundación Cardioinfantil, Bogotá, Colombia; <sup>e</sup> School of Medicine and Health Sciences, Public Health Research Group, Universidad del Rosario, Bogotá, Colombia

## Introduction

Budd-Chiari syndrome is defined as the obstruction of hepatic venous flow. Limited evidence exists in Colombia regarding the characterization of these patients. This study aimed to describe the clinical characteristics, management, and survival of patients diagnosed with Budd-Chiari syndrome in a Colombian hepatology referral center from 2010 to 2022.

## Methods

This is a descriptive retrospective longitudinal study of a cohort of patients with Budd-Chiari syndrome in adult patients diagnosed with Budd-Chiari syndrome in a Colombian hepatology center from January 2010 to January 2022.

## Results

31 patients diagnosed with Budd-Chiari syndrome were included. Of the patients, 61.3% (n = 19) were female. The median age was 28 years [interquartile range (IQR) 23–38]. **Acquired thrombophilias were the main risk factor (58.1%, n = 18), mainly secondary to antiphospholipid syndrome (55.5%, n = 10).** The primary clinical manifestation presented was ascites 87.1% (n = 27). At diagnosis, 74.2% (n = 23) were in a chronic course, and 5 patients had cirrhosis documented by biopsy. The Rotterdam score was class II (intermediate prognosis) in 48.3% (n = 14). Of the patients, 86% (n = 25) had anticoagulation therapy. Five patients (16.1%) underwent transjugular intrahepatic portosystemic shunt (**Figure 1**). Eleven patients died (35.5%), specific causes are in **Figure 2**. The Kaplan-Meier analysis showed that median survival time could not be estimated, as fewer than half of the patients (8 out of 31; 25.8%) experienced death during the follow-up period. However, the estimated mean survival time was 4,491.5 days (95% CI: 3,224.9–5,758.2 days). The cumulative survival at 1 year was 77%, and at 5 years was 65% (**Figure 3**).

## Discussion and conclusión

The cohort describes a young population, predominantly female, with a mostly chronic presentation, similar to that reported in international series.

- ✓ Unlike European studies, where myeloproliferative syndromes are typically the primary risk factor, in this series, antiphospholipid syndrome predominates as the most frequent acquired thrombophilia.
- ✓ A significant proportion of patients are diagnosed at advanced stages, with cirrhosis and complications of portal hypertension, which limits eligibility for interventions such as angioplasty or TIPS and may negatively impact survival.
- ✓ The 1- and 5-year survival rates are comparable to those reported internationally, suggesting that current management at this referral center is consistent with contemporary strategies.

### Limitations

- ✗ Retrospective, single-center design, which limits generalizability.
- ✗ Small sample size, inherent to the rarity of Budd-Chiari syndrome, reducing power for robust statistical analyses or causal inferences.

### Strengths

- ✓ Provides valuable data on a rare and understudied disease in Colombia and Latin America.
- ✓ Helps fill an important knowledge gap regarding clinical features and management strategies in this population

Figure 1. Treatment approach in patients with Budd-Chiari syndrome.

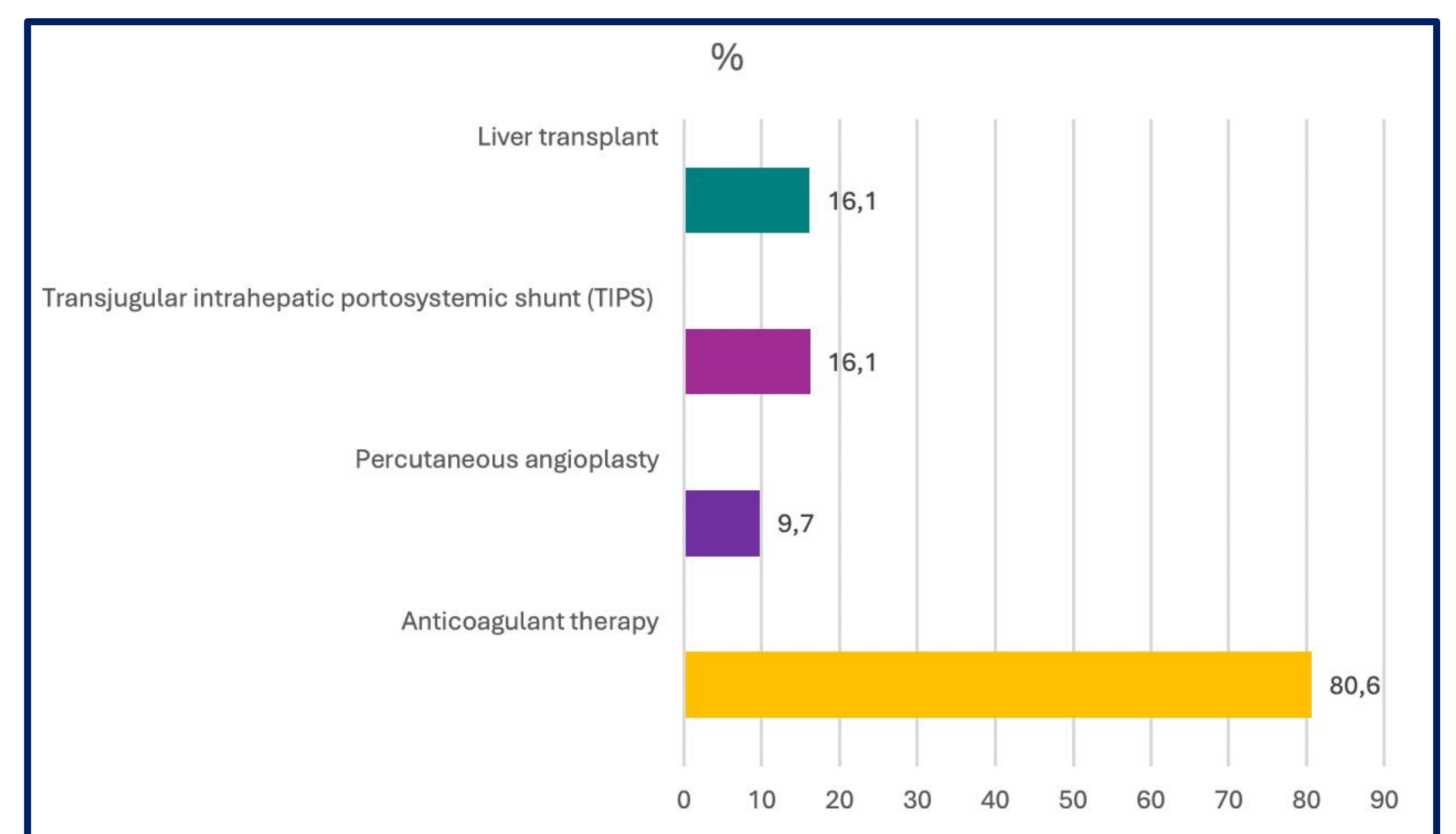


Figure 2. Cause of death in patients with Budd-Chiari syndrome.

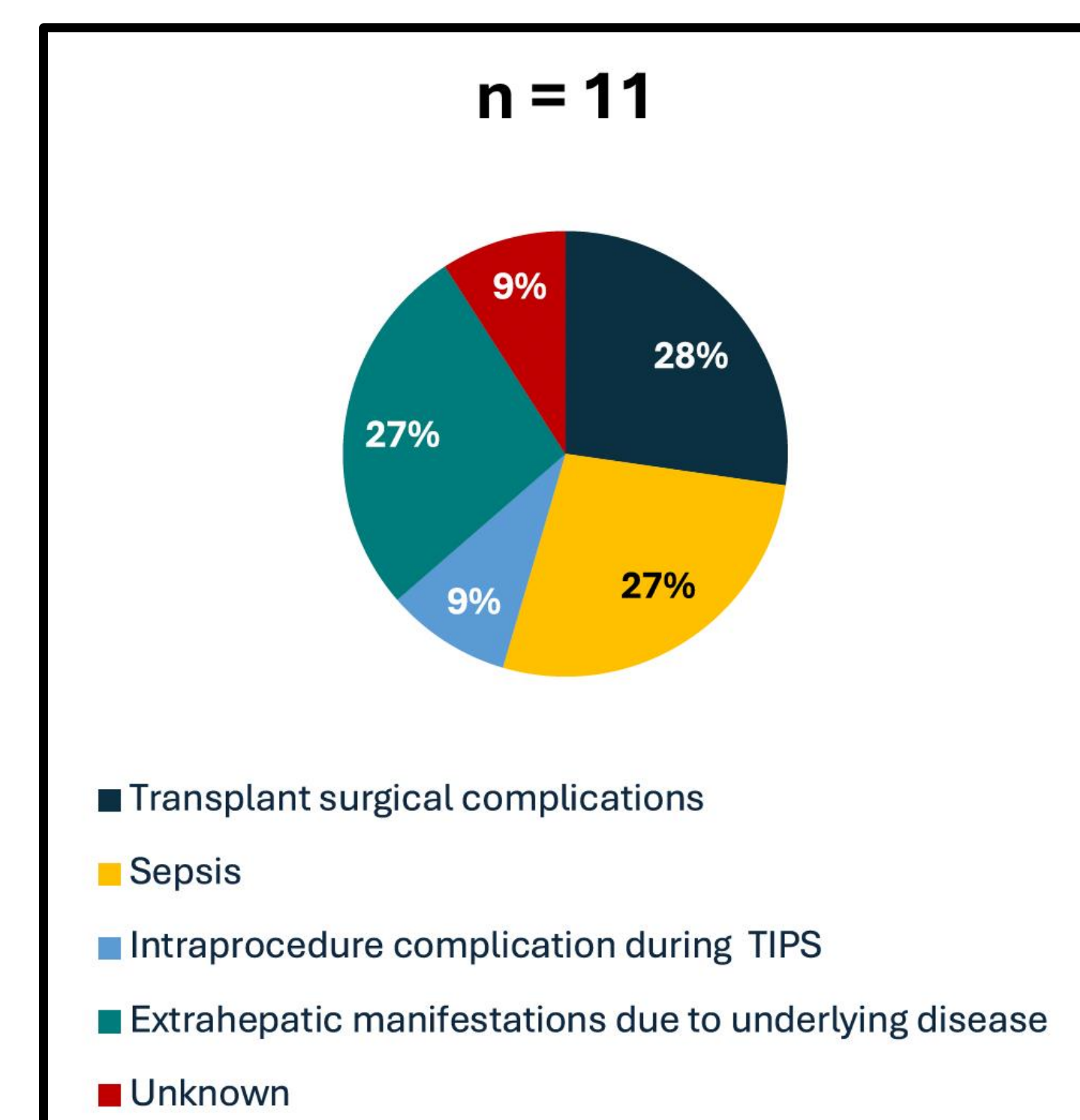


Figure 3 Survival rate in patients with Budd-Chiari syndrome

