

Liver transplantation for Polycystic Liver Disease: Still a challenging indication

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INTRODUCTION

Polycystic Liver disease is a rare disease, often associated with polycystic kidney disease. Liver transplantation remains the curative treatment for symptomatic polycystic liver disease. Most indications arise from disabling symptoms due to a mass effect.

The objective of the study is to describe the perioperative and survival results of patients with liver transplantation for PCLD.

MATERIAL AND METHOD

Retrospective study on PCLD patients undergoing LT at UC-Christus University Hospital between 1994-2022. All patients treated by LT from a deceased or living donor and those submitted to a simultaneous Liver-Kidney transplantation were included. Short- and long-term clinical, surgical, and postoperative characteristics were reviewed. Survival analysis was performed with Kaplan Meier.

RESULTS

Thirteen patients with PCLD received 16 (2,8%) liver grafts out of 580 LTs performed since 1994 (Table 1).

Table 1.- Clinical and operative characteristics of polycystic Liver disease patients undergoing liver transplantation.

| Variable | n (%) |
|-----------------------------------|-------------------|
| Median (range) | |
| Age | 52 (41-62) |
| Gender | |
| Male | 1 (7,7) |
| Female | 12 (92,3) |
| Waiting list (month) | 19 (0-30) |
| Operational MELD | 24 (18-36) |
| Transplantation | |
| Liver | 7 (53,8) |
| Simultaneous Liver-Kidney | 6 (46,2) |
| Graft type | |
| Total | 12 (92,3) |
| Partial | 1 (7,7) |
| Operation time (min) | 396 (202-780) |
| Weight of the explanted liver (g) | 6001 (2490-13000) |

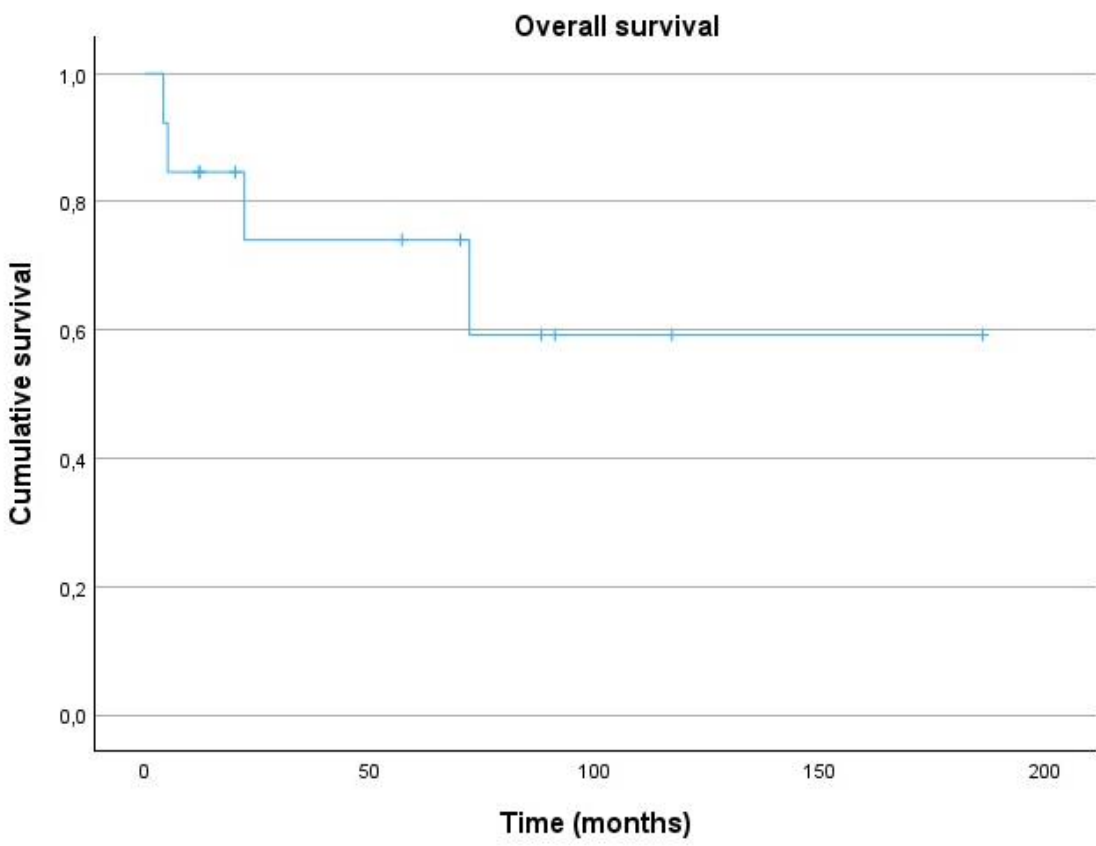
Table 2.- Postoperative characteristics of polycystic Liver disease patients undergoing liver transplantation.

| Variable | n (%) |
|-------------------------------|------------|
| Median (range) | |
| Length of stay (days) | 17 (10-31) |
| Early reoperation | |
| Hemorrhagic complications | 2 |
| Hepatic artery thrombosis | 3 |
| Re-transplantations | 3 |
| Late complication | |
| Biliary anastomotic stricture | 5 |
| Hepatic arterial thrombosis | 1 |

In the early postoperative (<30 days) two patients required three re-transplantations due to hepatic artery thrombosis and liver abscesses. Two patients had a biliary fistula treated endoscopically.

The median overall survival was 57 months, with a one and 5-year survival of 84.6% and 66.5%, respectively.

Figure 1.- Overall survival of polycystic Liver disease patients undergoing liver transplantation.



CONCLUSION

LT in patients with symptomatic Polycystic Liver disease is a complex and challenging but feasible procedure.

Late references may explain lower overall survival than other LT indications. A larger number of patients is required to establish significant differences.