



Case Report

Living Donor Liver Transplantation for a 78-Year-Old Recipient

Adil Baskiran,¹ Brian Carr,² Ali Aloun,¹ Sezai Yilmaz¹

¹Department of Surgery and Liver Transplant Institute, Inonu University Faculty of Medicine, Malatya, Türkiye

²Department of Translational Hepatocellular Carcinoma Research of Liver Transplantation Institute, Inonu University Faculty of Medicine, Malatya, Türkiye

Abstract

Advanced age of the patient carries a higher risk after liver transplantation (LT) and may lead to worse outcomes. As people's life expectancy increases and advances in the medical treatment of chronic liver disease have increased the need for LTs in the older population. LT recipients over the age of seventy have acceptable survival rates after LT, provided certain criteria are met.

A 78-year-old male patient with cryptogenic liver cirrhosis and tense ascites. His MELD-Na score was 27. He underwent a right lobe living donor liver transplant and was discharged from hospital in good health after a month.

LDLT for elderly recipients might be suitable if the recipients does not have any co-morbidity, their outcomes are comparable to those for younger recipients which resulted in fairly acceptable long-term outcomes and if donor morbidity is acceptable.

Keywords: Elderly recipient, liver transplantation, living donor liver transplantation

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Advanced age of the patient carries a higher risk after liver transplantation (LT) and may lead to worse outcomes.^[1,2] As people's life expectancy increases and advances in the medical treatment of chronic liver disease have increased the need for LTs in the older population. LT recipients over the age of seventy have acceptable survival rates after LT, provided certain criteria are met.^[3-5] Therefore, most transplant centers evaluate for LT patients over 70 years of age with less advanced liver disease and no cardiopulmonary comorbidity. There is no universally accepted upper age limit for LT candidates but the functional status of older patients is important in pre-LT evaluation. In this report, we aimed to present the living donor liver transplantation (LDLT) performed on one of the oldest liver patients in the literature.

Case Report

A 78-year-old male patient had cryptogenic liver cirrhosis with tense ascites. His blood laboratory values were total bilirubin 5.6 mg/dL, INR 2.86 IU, Na 134 mEq/dL, creatinine 0.9 g/dL, and MELD-Na score was 27. The general condition of the patient was moderate, he had difficulty in walking and slowness in speaking was remarkable. Physical examination, laboratory, and radiologic results of the elderly patient with high MELD score were considered. As a result of the evaluations in the LT council, the cardiopulmonary, neurological and GIT endoscopy findings of the patient who had 27 MELD-Na and 13 Child scores were completely normal. The patient's living donor was his 30-year-old nephew. The graft-to-recipient weight ratio was 1.01 and

Address for correspondence: Adil Baskiran, MD. Department of Surgery and Liver Transplant Institute, Inonu University Faculty of Medicine, Malatya, Türkiye

Phone: +90 422 341 06 60 **E-mail:** dr.adil.baskiran@gmail.com

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remnant liver volume of the donor was 38 %. A right lobe LDLT was performed, operation time was about 7 hours, and the patient's blood loss was 250 ml during the operation.

The donor's postoperative course was uneventful and was discharged on the 7th day. Recipient was extubated on postoperative day 1, the ICU process was 3 days and there were no complications. The immunosuppressive regimen consisted of cyclosporine A and corticosteroid. Care was taken to keep C0 levels low, one week after LT, C0 levels were between 50-100 ng/dL. Recipient was discharged on day 38 post LT, late discharge due to patient's departure to hometown Jordan. The patient has been followed for 2 years without any complication.

Discussion

Three-quarters of LT in Turkiye consists of LDLTs.^[6] LDLT differs from deceased donor liver transplantation (DDLTL) in many ways. It does not use public deceased donor source, does not harm the rights of other recipients. Another is the risk of mortality and morbidity in healthy donors and this poses a huge ethical problem. Therefore, LDLT for elderly recipients might be suitable if the recipients does not have any co-morbidity, their outcomes are comparable to those for younger recipients which resulted in fairly acceptable long-term outcomes and if donor morbidity is acceptable.^[3-5]

The advantages of the recipient presented in this article were that he had no co-morbidities, had a low BMI, and had a healthy living donor with adequate GRWR. The disadvantages consisted of high MELD score, presence of ascites for a long time, and advanced age. Considering these parameters, the LT decision was made and the result was successful with long-term follow up. Therefore, it is necessary to be very careful when making the LT decision in patients over 70 years of age, but it should not be deprived the appropriate recipients from LT.

So far, we have been able to find only one 78-year-old patient as the oldest recipient who underwent LDLT in the relevant literature.^[7] This patient had a 23-month survival, but had a pre-LT MELD score of 12 and had LDLT for HBV-related HCC. The patient presented in our article had a high MELD score and tense ascites.

Interesting observation in the elderly LT recipients was the lower incidence of acute cellular rejection according to the younger recipients. Therefore, we started cyclosporine A, which is a less potent immunosuppressive agent, at a low dose in this patient. Another center recommends reducing the usual doses of tacrolimus by 60-80% as an immunosuppressive strategy.^[7] A result of aging is a reduction of the

cellular and humoral immune responses, but it is associated with an increased risk of infection and malignancy.^[7,8] For this reason, the patient's clinical and laboratory observations were taken more frequently.

In conclusion, LDLT may be appropriate for low-risk elderly recipients with favorable long-term outcomes. This report presents one of the oldest recipients which were performed LDLT.

Disclosures

Informed consent: Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

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