



# Donors Older Than 75 Years Do Not Influence the Appearance of Biliary Complications After Liver Transplantation

M.R. González-Sánchez<sup>a,\*</sup>, P.A. Cascales-Campos<sup>a</sup>, J.J. López-Espín<sup>b</sup>, B. Febrero<sup>a</sup>, J.A. Pons<sup>a</sup>, A. Vargas Acosta<sup>a</sup>, J. Ros<sup>a</sup>, F. Sánchez-Bueno<sup>a</sup>, R. Robles<sup>a</sup>, L. Sáenz<sup>c</sup>, P. Ramírez<sup>a</sup>, and P. Parilla<sup>a</sup>

<sup>a</sup>Transplant Unit, General Surgery, Virgen de la Arrixaca University Hospital, Instituto Murciano de Investigaciones Biomédicas (IMIB), Murcia, Spain; <sup>b</sup>Operation Research Institute, University of Miguel Hernández, Elche, Spain; and the <sup>c</sup>Clinical Analysis Department, Complejo Hospitalario de Navarra, Pamplona, Spain

## ABSTRACT

**Background.** In recent years, several studies have shown that the age of the donor may be related to an increase in the occurrence of biliary complications (BCs), which remain the main cause of morbidity after liver transplantation. This study analyzed the type and management of these BCs, the impact of BCs on graft and patient survival rates, and the influence of some characteristics of donors and recipients on BC appearance in patients transplanted with donors 75 years of age or older.

**Patients and Methods.** From 2003 to 2016, 100 liver transplantations with donors 75 years of age or older (15.6%) were performed in our hospital. The data were compared with a control group of 400 patients with younger donors (case-control 1:4 per chronology).

**Results.** The BC rate in the group of patients transplanted with organs from elderly donors was 18%, compared to 21.5% in the control group. Specifically, in the immediate post-transplantation period, 14% of the elderly donor group and 13.8% of the control group presented some BCs, with no statistically significant differences in the incidence, type, and treatment of BCs between the two groups. The occurrence of BCs was not a factor associated with graft and patient survival rates. In the global population, donor death by cerebral vascular accident and male donors have influenced the occurrence of BCs.

**Conclusions.** The advanced age of the donor has not influenced BC rates after transplantation.

**L**IVER transplantation (LT) remains the standard treatment for patients with terminal liver disease [1–3]. Over time, transplantation results have been significantly improved thanks to improvements in organ preservation, surgical techniques, and immunosuppression. The increase in patients on the waiting list for transplantation has generated a negative disproportion in relation to the available organs, which has led to the implementation of programs to obtain more donors for transplantation. The group of elderly donors has, along with the implementation of donation after cardiac death programs, increased the availability of organs for transplantation. The donor's age has been reported as a risk factor in the development of post-transplantation biliary complication (BC). This study analyzed the incidence, type, and management of BC in patients transplanted with donors who were 75 years of age

or older. We also analyzed the impact of BC on graft and patient survival rates, and the influence of some characteristics of donors and recipients on BC appearance in patients transplanted with donors who were 75 years of age or older.

## PATIENTS AND METHODS

The first 100 LTs performed with grafts from donors who were 75 years or older in age were analyzed during a period from January 2003 to December 2016. The results from this group were compared to those of another group of patients who were transplanted in

\*Address correspondence to Dña. M<sup>a</sup> del Rocío González Sánchez, PhD, Crta./ Madrid-Cartagena. s/n. 30120. El Palmar, Murcia, Spain. E-mail: [rociogs@hotmail.com](mailto:rociogs@hotmail.com)

**Table 1. Univariate Analysis of Recipients' and Donors' Characteristics, Main Outcomes After LT, and Analysis of BC (Types and Treatment) in the Older Group and in the Control Group**

Characteristics	Study Group (n = 100)	Control Group (n = 400)	P Value
<b>Recipients' demographics</b>			
Male, n (%)	74 (74)	307 (76.8)	—
Age, yrs	57.52 ± 8.81	53.21 ± 10.75	.000
BMI, kg/m <sup>2</sup>	26.76 ± 4.72	26.58 ± 4.73	—
<b>Recipients' underlying hepatopathy, n (%)</b>			
HCC	64 (64)	73 (18.2)	.000
Cirrhosis HCV	11 (11)	68 (17)	—
Alcoholic origin	13 (13)	119 (29.8)	.001
Emergency LT	4 (4)	56 (14)	.006
Others	8 (8)	84 (21)	.002
MELD score	11.17 ± 23.21	14.44 ± 45.80	.000
<b>Donors' characteristics</b>			
Male, n (%)	46 (46)	242 (60.5)	.013
<b>Cause of death, n (%)</b>			
Trauma	14 (14)	90 (22.5)	—
Vascular	83 (83)	265 (66.3)	.001
Anoxia	3 (3)	31 (7.8)	—
Others	0 (0)	9 (2.2)	—
AST, UI/L	30.53 ± 27.53	58.02 ± 81.62	.000
ALT, UI/L	23.13 ± 14.00	52.19 ± 70.12	.000
Na <sup>+</sup> , mEq/L	134.16 ± 7.74	147.51 ± 8.2	—
Quick (%)	78.57 ± 15.90	76.26 ± 17.98	—
<b>Grafts' characteristics, n (%)</b>			
Steatosis	13 (13)	41 (10.2)	—
≤30%	11 (11)	33 (8.25)	—
30%–60%	2 (2)	8 (2)	—
Cold ischemia time, min	286.48 ± 147.71	286.14 ± 157.70	—
<b>Outcomes after LT, n (%)</b>			
Early allograft dysfunction	8 (8)	31 (7.8)	—
<b>Postoperative complications</b>			
Total	44 (44)	156 (39)	—
Biliary	14 (14)	55 (13.8)	—
Vascular	9 (9)	22 (5.5)	—
Infectious	10 (10)	39 (9.8)	—
Hemorrhagic	2 (2)	14 (3.5)	—
Others	8 (8)	22 (5.5)	—
<b>Graft retransplantation</b>			
BC, n (%)	9 (9)	34 (8.5)	—
Total	18 (18)	86 (21.5)	—
Biliary leakage	5 (5)	24 (6)	—
Biliary stricture	11 (11)	48 (12)	—
Biliary peritonitis after removal of T-Tube	2 (2)	12 (3)	—
Necrosis of the bile tract	0 (0)	2 (0.4)	—
<b>Treatment, n (%)</b>			
Medical	3 (3)	10 (2.5)	—
Surgical	6 (6)	31 (7.8)	—
Endoscopic	6 (6)	35 (8.8)	—
Radiological	3 (3)	10 (2.5)	—

Abbreviations: BC, biliary complication; LT, liver transplantation; BMI, body mass index; HCC, hepatocellular carcinoma; HCV, hepatitis C virus; MELD, Model for End-stage Liver Disease; AST, aspartate aminotransferase; ALT, alanine aminotransferase.

a related temporal sequence, so that for each transplanted liver patient with donor  $\geq 75$  years, four patients were selected, establishing a control-case study with a ratio of 1:4. A total of 500 patients have been analyzed in the present study. We considered donor variables, variables of the recipients before LT, variables during LT, and variables of the postoperative LT that have included all BCs, types, and treatment.

For statistical analysis, the qualitative variables were expressed as frequencies and percentages and compared using the Pearson  $\chi^2$  test. The quantitative variables were expressed as means  $\pm$  standard deviation or median and range (minimum to maximum) in the case of these variables. The Mann-Whitney test was used for comparison; this nonparametric test is the most powerful to compare two independent continuous variables. A first multivariate analysis was

Download English Version:

<https://daneshyari.com/en/article/8827418>

Download Persian Version:

<https://daneshyari.com/article/8827418>

[Daneshyari.com](https://daneshyari.com)