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P-177. Prognostic Factors of Mortality in HCV-HIV-Coinfected Liver Transplant Recipients From the FIPSE OLT-HIV-05-GESIDA 45-05 Cohort Study (2002-06)

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Prognostic factors of mortality in Spanish HCV-HIV coinfecting LT recipients

BACKGROUND

Recurrent HCV after orthotopic liver transplantation (OLT) is a major cause of graft loss and death. Preliminary studies suggest poorer survival in HIV-coinfecting patients.

OBJECTIVE

To study the prognostic factors of mortality in Spanish HCV-HIV-coinfecting liver transplant recipients.

PATIENTS & METHODS

- **Prospective study of the first 60 HCV/HIV-1-infected patients who underwent OLT in Spain (2002-06).**
- **The variables used in this study were age of the donor, HIV (stage, CD4 cell count, plasma HIV-1 RNA viral load, cART) & liver disease (MELD, Child) of the recipient, OLT characteristics at baseline and during F/U, type of immunosuppressive regimens and anti-HCV treatment.**
- **HIV-infected recipients were administered the same immunosuppressive regimens & prophylaxis protocols as HIV-negative patients.**

Re-Transplantation & Mortality

Median follow-up (months)	15 (8; 30)*
Retransplantation	2 (3%)
Mortality	13 (22%)
- Graft cirrhosis – HCV recurrence	6
- Post-op. complications	4
- Other**	3

* Median; IQR; ** Chronic rejection, cancer, and sepsis one case each.

Pre-OLT characteristics (I)

	Survivors N=47	Dead N=13	<i>P</i> value
Age (yr.)*	42	40	NS
Male gender (%)	77%	77%	NS
IDU	75%	85%	NS
HBV coinfection	17%	8%	NS
HCV genotype			NS
- G1 & G4	72%	69%	
- G2 & G3	23%	23%	
Plasma HCV-RNA^{*,**}	0.9	0.8	NS
HCC	13%	15%	NS

All patients were Caucasian and none of them had had a previous C event;
 IDU= iv drug users; HCC= Hepatocellular carcinoma; * Median; **Units x 10⁶/mL.

Pre-OLT characteristics (II)

	Survivors N=47	Dead N=13	<i>P</i> value
Child-Pugh class			NS
- A	6%	8%	
- B	47%	38%	
- C	47%	54%	
MELD score*	15	16	NS
HAART regimen			NS
- PI-based	17%	23%	
- NNRTI-based	51%	38%	
- Others	32%	39%	

* Median; NS = non-significant.

Pre-OLT characteristics (III)

	Survivors N=47	Dead N=13	P value
CD4+ cell count			
- Absolute number*	270	277	NS
- Percentage	24%	23%	NS
Plasma HIV-RNA			
- <200 copies/mL	96%	92%	NS
Time on WL (mo.)*	3	5.5	NS
Creatinine (mg/dL)	.83	.80	NS
Cadaveric donor	96%	100%	NS
Donor age (yr.)*	49	64	.01

* Median; WL= Pre-transplant waiting list; NS = non-significant.

Post-OLT characteristics (I)

	Survivors N=47	Dead N=13	<i>P</i> value
Time to restart ART (d.)*	8	7	NS
HAART regimen			NS
- PI-based	20%	17%	
- NNRTI-based	58%	58%	
- Others	22%	25%	
Immunosuppression			NS
- CsA-based	32%	39%	
- Tacrolimus-based	68%	61%	

* Median; NS = non-significant.

Post-OLT characteristics (II)

	Survivors N=47	Dead N=13	<i>P</i> value
HAART toxicity*	15%	38%	.11
Immunosuppressive Rx. toxicity*	34%	69%	.03
Acute rejection	45%	61%	NS
Chronic rejection	4%	23%	.06
Cirrhosis (F4)	4%	46%	<.01
SVR to anti-HCV therapy	50% (6/12)	0% (0/6)	.05

NS = non-significant. * Grade >2 adverse events; SVR = Sustained virological response.

None of the 6 patients with SVR died during f/u.

Univariate Analysis of Mortality

Variable	HR (95%CI)	P value
Donor age		
- < 65 years	1	
- ≥ 65 years	3.56 (1.08; 11.7)	.04
Immunosuppressor toxicity		
- No	1	
- Yes	2.69 (0.82; 8.76)	.10
cART toxicity		
- No	1	
- Yes	2.39 (0.78; 7.33)	.13
Chronic rejection		
- No	1	
- Yes	4.67 (1.20; 18.2)	.03
Recurrence of cirrhosis (F4)		
- No	1	
- Yes	4.08 (1.36–12.2)	.01

Baseline CD4 count, HCV genotype, MELD or Child scores, acute rejection, type of HAART or immunosuppressive regimen, SVR to anti-HCV Rx and HCC were not associated with death.

Multivariate Analysis of Mortality

Variable	HR (95%CI)	P value
Donor Age		
- < 65 years	1	
- ≥ 65 years	2.91 (0.86;9.88)	.08
Recurrence of cirrhosis (F4)		
- No	1	
- Yes	3.51 (1.15–10.7)	.03

All variables with a *P* value <.2 on univariate analysis were used to identify independent predictors of mortality

CONCLUSIONS

- **OLT is a safe and effective short-term procedure in HCV-HIV-coinfecting recipients.**
- **Advanced donor age and graft cirrhosis (F4) due to HCV recurrence were the two variables associated with death in the multivariate analysis.**
- **Better donor selection and effective anti-HCV therapies could improve the outcome of HCV OLT in HIV-infected recipients.**