

Table 1A Patient characteristics (non-orthotopic liver transplantation patients with hepatitis C)

	CHC (n = 25)	CHC-PNALT (n = 6)	CHC-SVR (n = 6)	p value
Age	56.5 (53.7–62.2)	67.5 (58.2–77.2)	55.5 (38.2–57.7)	0.029
Male gender (%)	9 (40.9%)	0 (0%)	3 (50%)	0.080
BMI	22.6 (20.5–25.1)	21.7 (19.3–29.3)	22.3 (16.4–23.7)	0.515
WBC (/μl)	5640 (4505–6382)	3710 (2970–4347)	5630 (3998–6850)	0.022
Platelets ($\times 10^4$ /mm ³)	24.7 (11.2–29.5)	20.4 (17.5–31.2)	22.5 (17.0–23.7)	0.470
PT-INR	0.97 (0.90–1.08)	0.88 (0.86–0.89)	0.90 (0.87–1.00)	0.214
Total bilirubin (mg/dl)	0.71 (0.52–1.33)	0.58 (0.41–0.83)	0.75 (0.59–0.90)	0.385
Albumin (g/dl)	4.2 (3.75–4.35)	4.4 (4.25–4.52)	4.5 (4.2–5.2)	0.107
ALT (IU/l)	31.5 (21–59)	20.5 (12.5–35.2)	16.5 (12.3–35.2)	0.019
HCV RNA (LogIU/ml)	6 (3.32–6.57)	6.25 (5.6–6.6)	-	0.403 ^a

Abbreviations: BMI, body mass index; WBC, white blood cells; PT-INR, prothrombin time–international normalized ratio;

ALT, alanine aminotransferase; HCV, hepatitis C virus; CHC, chronic hepatitis C; PNALT, persistently normal ALT;

SVR, sustained viral response.

^acomparison between CHC and CHC-PNALT

Table 1B Patient characteristics (orthotopic liver transplantation patients with hepatitis C)

	OLT-early 40 days post-OLT (n = 14)	OLT-CHC (n = 14)	OLT-PNALT (n = 12)	OLT-SVR (n = 6)	p value
Age	54 (48–64.5)	62 (59.5–64.5)	63 (58–68)	64 (56–65)	0.754
Male gender (%)	7 (50.0%)	9 (69.2%)	6 (54.5%)	6 (75.0%)	0.613
MELD at pre-OLT	14 (11–16)	11.5 (10–13.8)	14 (11–18)	13 (12–17)	0.305
GRWR (%)	1.07 (0.89–1.28)	0.85 (0.77–1.17)	0.99 (0.78–1.34)	0.87 (0.81–1.25)	0.634
BMI	21.8 (20.6–25.1)	24.1 (21.1–26.5)	25.7 (22.1–27.9)	25.3 (23.0–26.4)	0.989
WBC (/μl)	3410 (2727–4410)	4310 (2875–4965)	3830 (2610–6310)	5775 (3905–6355)	0.509
Platelets ($\times 10^4 / \text{mm}^3$)	10.4 (7.2–15.2)	11.1 (9.25–17.4)	15.0 (12.4–17.3)	17.4 (12.4–23.0)	0.11
PT-INR	0.94 (0.86–1.13)	0.91 (0.87–0.94)	0.91 (0.88–0.95)	0.92 (0.87–0.97)	0.744
Total bilirubin (mg/dl)	1.51 (0.60–3.33)	0.97 (0.76–1.23)	1.05 (0.74–1.41)	0.71 (0.36–1.36)	0.388
ALT (IU/l)	31 (26.2–190)	52 (34–75.5)	25 (12.4–48)	22 (20–51.7)	0.029
HCV RNA (LogIU/ml)	5.8 (2.1–7.8)	6.4 (6.05–6.75)	6.6 (6.3–7.1)	-	0.271 ^a
ACR	2 (14.3%)	0 (0%)	4 (36.4%)	2 (28.6%)	0.076
Immunosuppressive protocol (Tac/CsA)	7/7	3/9	5/6	1/6	0.323
Use of mycophenolate mofetil	8 (57.1%)	11 (91.7%)	10 (90.9%)	4 (57.1%)	0.143
Median follow-up time after OLT (day)		1459 (964–2263)	1072 (519–2260)	2015 (1217–3136)	0.176
METAVIR activity (mean)		1.0	0.5	0	0.097
METAVIR fibrosis (mean)		1.1	0.7	0	0.187

Abbreviations: MELD, model for end-stage liver disease; GRWR, graft-to-recipient weight ratio; OLT, orthotopic liver transplantation; BMI, body mass index; WBC, white blood cells; PT-INR, prothrombin time–international normalized ratio; ALT, alanine aminotransferase; HCV, hepatitis C virus; ACR, acute cellular rejection; Tac, tacrolimus; CsA, cyclosporine A; CHC, chronic hepatitis C; PNALT, persistently normal ALT; SVR, sustained viral response.

Statistical evaluations were performed between OLT-CHC, OLT-PNALT and OLT-SVR group

^acomparison between OLT-CHC and OLT-PNALT

Table 2A

Correlation between the percentage of regulatory and type-1 regulatory T cells amongst CD4+ T cells and clinical data of non-orthotopic liver transplantation patients with hepatitis C

Variables/Category	Tregs	p value	Variables/category	Tr1s	p value
	(%) Median			(%) Median	
WBC (/μl)			WBC (/μl)		
<4310	7.78	0.212	<4915	4.86	0.008
≥4310	5.98		≥4915	1.69	
Platelets (×10 ⁴ /mm ³)			Platelets (×10 ⁴ /mm ³)		
<19.0	7.71	0.206	<18.9	1.77	0.162
≥19.0	5.85		≥18.9	3.14	
ALT (IU/l)			ALT (IU/l)		
<30	7.41	0.761	<29.5	3.64	0.068
≥30	6.38		≥29.5	2.51	
Total bilirubin (mg/dl)			Total bilirubin (mg/dl)		
<0.72	6.56	0.722	<0.71	2.83	0.337
≥0.72	7.37		≥0.71	2.4	
HCV RNA (LogIU/ml)			HCV RNA (LogIU/ml)		
(-)	7.85	0.169	(-)	4.73	0.221
(+)	5.85		(+)	1.96	
HCV RNA (LogIU/ml)			HCV RNA (LogIU/ml)		
<5.9	7.7	0.357	<6.0	2.24	0.581
≥5.9	5.61		≥6.0	2.67	

Abbreviations: Tregs, regulatory T cells; Tr1s, type-1 regulatory T cells; OLT, orthotopic liver transplantation; WBC, white blood cells; ALT, alanine aminotransferase.

Table 2B

Correlation between the percentage of regulatory and type-1 regulatory T cells amongst CD4+ T cells and clinical data of orthotopic liver transplantation patients with hepatitis C

Variables/Category	Tregs	p	Variables/category	Tr1s	p
	(%)	value		(%)	value
	Median			Median	
WBC (/μl)			WBC (/μl)		
<3960	7.05	0.391	<4385	2.75	0.385
≥3960	5.75		≥4385	2.15	
Platelets			Platelets		
(×10 ⁴ /mm ³)			(×10 ⁴ /mm ³)		
<14.6	7.05	0.012	<14.7	1.82	0.097
≥14.6	4.94		≥14.7	4.17	
ALT (IU/l)			ALT (IU/l)		
<44.5	5.11	0.052	<44	2.62	0.904
≥44.5	7.2		≥44	2.49	
Total bilirubin			Total bilirubin		
(mg/dl)			(mg/dl)		
<0.92	7.6	0.42	<0.99	2.49	0.386
≥0.92	5.11		≥0.99	2.74	
HCV RNA			HCV RNA		
(LogIU/ml)			(LogIU/ml)		
(-)	5.02	0.416	(-)	4.92	0.99
(+)	6.49		(+)	2.57	
HCV RNA			HCV RNA		
(LogIU/ml)			(LogIU/ml)		
<6.3	5.1	0.258	<6.4	2.54	0.797
≥6.3	6.63		≥6.4	2.6	
Activity score			Activity score		
0	4.79	0.088	0	1.88	0.634
1–2	7.60		1–2	2.70	
Fibrosis score			Fibrosis score		
0	4.78	0.050	0	1.88	0.289

1-3

7.60

1-3

2.70

Abbreviations: Tregs, regulatory T cells; Tr1s, type-1 regulatory T cells; OLT, orthotopic liver transplantation; WBC, white blood cells; ALT, alanine aminotransferase.