Table 1. Demographics of study patients stratified by type of calcineurin inhibitor, n (%)

Characteristic	Unknown (%)	Type of CNI		P
		Cyclosporine n = 9,694	Tacrolimus n = 21,483	
Transplant year	–			<0.001
Median [IQR]		2006 [02–10]	2012 [08–15]	
Mean ± SD		2006.4±4.7	2011.4±4.8	
2000 – 2009		7,155 (74)	7,087 (33)	<0.001
2010 – 2019		2,539 (26)	14,396 (67)	
Retransplants	–	464 (5)	2,283 (11)	<0.001
Female recipients	–	3,351 (35)	7,643 (36)	0.08
Recipient age (years)	–			<0.001
Median [IQR]		65 [62–68]	66 [63–69]	
Mean ± SD		65.6±4.0	66.2±4.5	
60 – 64		4,102 (42)	8,486 (40)	<0.001
≥ 65		5,592 (58)	12,997 (60)	
Cold ischemia time (hours)	–			<0.001
Median [IQR]		15 [11–19]	15 [11–18]	
Mean ± SD		15.7±6.5	15.1±6.1	
PRA >0%	29.8	993 (12)	3,816 (28)	<0.001
Donor age (years)	–			<0.001
Median [IQR]		64 [52–70]	64 [54–71]	
Mean ± SD		60.0±14.0	61.2±13.4	
Cause of donor death	4.9			<0.001
Trauma		1,680 (19)	2,897 (14)	
Cerebrovascular		6,367 (71)	13,936 (68)	
Other		953 (11)	3,803 (18)	
Donation after cardiac death	2.4	322 (3)	3,643 (17)	<0.001
Donor history of hypertension	4.0	2,692 (29)	3,899 (19)	<0.001
HLA-A+B+DR mismatches	10.3			<0.001
Mean ± SD		3.29±1.55	3.48±1.43	
0 – 1		1,149 (12)	1,679 (9)	<0.001
2 – 4		5,928 (64)	12,491 (67)	
5 – 6		2,128 (23)	4,584 (24)	
Induction treatment	–	4,897 (51)	10,418 (48)	<0.001
Antimetabolite	–			<0.001
MPA		8,121 (84)	18,966 (88)	
Azathioprine		746 (8)	740 (3)	
None		827 (9)	1,777 (8)	
On steroids	–	9,302 (96)	18,512 (86)	<0.001

CNI, calcineurin inhibitor; PRA, panel-reactive antibodies; MPA, mycophenolic acid; IQR, interquartile range; SD, standard deviation

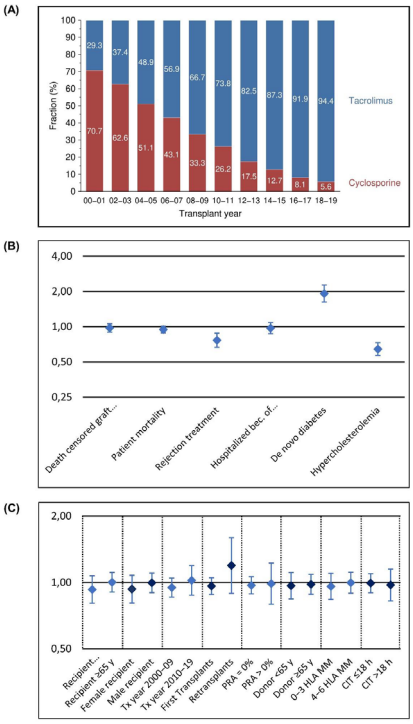

Figure 1
(A) Distribution of the type of calcineurin inhibitor of study patients stratified by transplant year. (B) Risk of tacrolimus versus cyclosporine for death-censored graft loss and patient mortality during the first five post-transplant years as well as side effects during the first post-transplant year. Hazard ratios (HR) or odd ratios (OR) with 95% confidence interval (CI) of multivariable Cox or logistic regressions are shown. (C) Subgroup analysis with hazard ratios and 95% CI of tacrolimus versus cyclosporine on 5-year death-censored graft loss.

Conclusions: Choice of CNI does not influence death-censored graft loss and mortality in recipients aged ≥60 years. Selection of CNI in this population should be influenced by the patient's individual susceptibility to the reported secondary outcomes.

INTRODUCING CELLS FOR IMMUNE REGULATION

OP519 MESENCHYMAL STROMAL CELLS COMBINED WITH EVEROLIMUS PROMOTE T REG EXPANSION BUT DO NOT SYNERGIZE IN A RAT LIVER TRANSPLANT REJECTION MODEL

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Background: Mesenchymal stromal cells (MSCs) have particular properties that can be of interest in organ transplantation, including expansion of regulatory T cells (Tregs), a key factor in graft tolerance induction. The immunosuppression to be associated with MSCs has not yet been defined. Additionally, the impact of the association of everolimus with MSCs on Treg expansion and on induction of liver graft tolerance has never been studied. The aim of this study was to evaluate the effects of MSCs combined, or not, with everolimus, on Treg expansion and in a model of liver transplantation (LT) rejection in the rat.
Methods: Firstly, Lewis rats received intravenous MSCs at D9 with/without subcutaneous everolimus from D0 to D14. Analysis of circulating Tregs was performed at D0, D14 and D28. Secondly, 48 h after LT with a Dark Agouti rat liver, 30 Lewis rats were randomized in 3 groups: everolimus (subcutaneous for 14 days), MSCs (intravenous injection at D2 and D9), or both everolimus and MSCs. Rejection of the liver graft was assessed by liver tests, histology and survival.
Results: Individually, MSC infusion and everolimus promoted Treg expansion in rats, and everolimus had no negative impact on Treg expansion when combined with MSCs. However, in the LT model, injections of MSCs 2 and 9 days following LT were not effective at preventing acute rejection, and the combination of MSCs with everolimus failed to show any synergistic effect when compared to everolimus alone.
Conclusion: Everolimus may be used in association with MSCs. However, in our model of LT in the rat, post-transplant MSC injections did not prevent acute rejection, and the association of MSCs with everolimus did not show any synergistic effect.

OP520 EFFICIENT EXPANSION OF HUMAN GRANZYME B– EXPRESSING B CELLS WITH POTENT REGULATORY PROPERTIES

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Background: Granzyme B (GZMB)-expressing B cells have been shown to be an important regulatory B cell subset in humans. However, it is unclear which subpopulations of B cells express GZMB under normal conditions and which protocols effectively induce ex vivo expansion of GZMB$^+$ B cells.
Methods: Fresh human PBMCs were isolated from healthy blood donors by Ficoll gradient centrifugation and phenotyped by flow cytometry. B cells and CD4$^+$CD25$^-$ effector T cells were negatively selected using magnetic beads. GZMB$^+$ B cells were expanded using a cytokine cocktail and cocultured with effector T cells. The phenotype and the mechanisms underlying the suppressive capacity of expanded GZMB+ B cells were studied.
Results: We found that in the peripheral blood of normal individuals, plasmablasts were the major B cell subpopulation that expressed GZMB. However, when using an in vitro plasmablast differentiation protocol, we obtained only