Supplementary Materials

Table S1. Spearman correlations between HDL paricles, LDL-P, and TRL-P

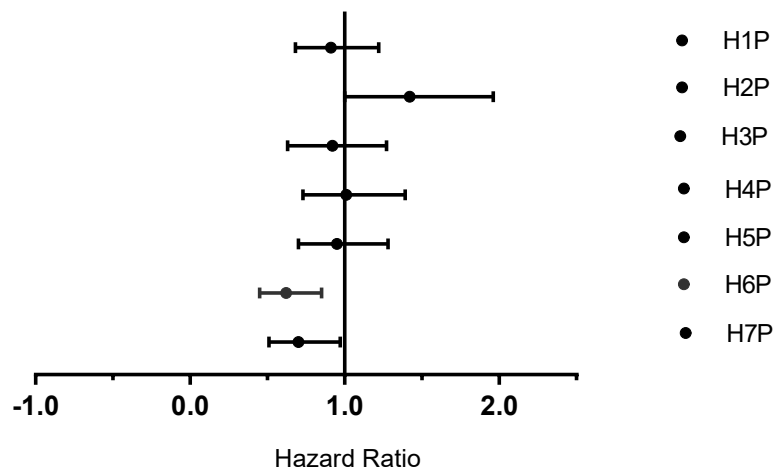| Variables	Large HDL	Medium HDL	Small HDL	LDL-P	TRL-P
Large HDL	-	0.089*	-0.236***	-0.225***	-0.225***
Medium HDL	-	-	-0.392***	-0.043	-0.058
Small HDL	-	-	-	0.145**	0.136**
LDL-P	-	-	-	-	0.395***
TRL-P	-	-	-	-	-

*P<0.05;: **P<0.01; ***P<0.001

Figure S1. Association between Pasma HDL subspecies and risk of PTDM.Hazard ratio (95% CIs) per 1SD increase in each HDL subspeceis derived from Cox proportional hazards model for PTDM events (n=39 total events)

Table S2. Association between large HDL subspecies and risk of PTDM in 351 RTRs

Tertiles	1	2	3		
H6P µmol/L	>1.2	0.4-1.1	<0.4	Per 1SD Log H6P	*P* value
Cases	4	14	21	39	
Crude analysis	1.00 (ref)	4.04 (1.33-12.29)	6.15 (2.11-17.9)	0.62 (0.45-0.85)	0.003
Model 1	1.00 (ref)	4.77 (1.22-11.62)	5.90 (1.98-17.57)	0.64 (0.47-0.89)	0.007
Model 2	1.00 (ref)	3.26 (1.03-10.28)	5.69 (1.89-17.11)	0.64 (0.45-0.90)	0.010
Model 3	1.00 (ref)	3.80 (1.22-11.79)	6.61 (2.20-19.84)	0.60 (0.43-0.83)	0.002
Model 4	1.00 (ref)	3.66 (1.16-11.50)	6.12 (2.03-18.44)	0.63 (0.45-0.88)	0.006
Model 5	1.00 (ref)	3.44 (1.11-10.65)	5.06 (1.66-15.41)	0.71 (0.50-0.99)	0.047
Model 6	1.00 (ref)	3.61 (1.15-11.28)	5.39 (1.77-16.37)	0.68 (0.49-0.95)	0.024
H7P µmol/L	>0.4	0.2-0.4	<0.2	Per 1SD Log H7P	*P* value
Cases	5	20	14	39	
Crude analysis	1.00 (ref)	3.53 (1.32-9.41)	3.65 (1.31-10.14)	0.70 (0.51-0.97)	0.034
Model 1	1.00 (ref)	3.14 (1.17-8.46)	3.18 (1.13-8.99)	0.75 (0.53-1.06)	0.10
Model 2	1.00 (ref)	2.89 (1.06-7.85)	2.88 (1.00-8.26)	0.76 (0.54-1.07)	0.11
Model 3	1.00 (ref)	3.48 (1.29-9.41)	3.07 (1.08-8.72)	0.77 (0.55-1.08)	0.12
Model 4	1.00 (ref)	3.09 (1.14-8.35)	2.65 (0.92-7.60)	0.82 (0.58-1.15)	0.25
Model 5	1.00 (ref)	2.24 (0.82-6.10)	2.13 (0.74-6.13)	0.93 (0.65-1.33)	0.69
Model 6	1.00 (ref)	3.19 (1.16-8.78)	2.39 (0.80-7.10)	0.90 (0.64-1.29)	0.58

HRs (95% CIs) were derived from Cox proportional hazard models. Multivariable model 1 was adjusted for age, sex, and BMI. Model 2 adjusted for model 1 variables amd alcohol consumption, smoking, and physical activity; Model 3 adjusted for model 1 variables and treatment (lipid-lowering medication, anti-hypertensive medication, prednisolone dose, calcineurin inhibitors, and proliferation inhibitors); Model 4 adjusted for model 1 variables and eGFR, urinary albumin excretion, CMV infection, time after transplantation; Model 5 adjusted for model 1 variables and HbA1c; Model 6 adjusted for model 1 variables and systolic blood pressure, fasting blood glucose and triglycerides.