Supplementary Material

Long-Term Changes in Sleep Disordered Breathing in Renal Transplant Patients: Relevance of the BMI

Francesca Mallamaci [1,2], Rocco Tripepi [1], Graziella D'Arrigo [1], Gaetana Porto [1], Maria Carmela Versace [1], Carmela Marino [1], Maria Cristina Sanguedolce [1], Giovanni Tripepi [1] and Carmine Zoccali [1,*]

[1] CNR-IFC (National Research Council of Italy, Center of Clinical Physiology, Clinical Epidemiology of Renal Diseases and Hypertension Unit, Reggio Cal., c/o Ospedali Riuniti, Reggio Cal; francesca.mallamaci@libero.it (F.M.); rtripepi@ifc.cnr.it (R.T.); g.darrigostat@tin.it (G.D'A.); tania.porto25@hotmail.it (G.P.); permarica@gmail.com (M.C.V.); cmarino@ifc.cnr.it (C.M.); mcristinas@libero.it (M.C.S.); gtripepi@ifc.cnr.it (G.T.);

[2] Division of Nephrology and Transplantation, Department of Medicine, Ospedali Riuniti, Reggio Calabria Italy

Correspondence: carmine.zoccali@tin.it; Tel: +39-340-73540-62

Supplemental Table S1 Concomitant therapies in the whole study population and in patients divided according to the AHI. Data are expressed as percent frequency. The total number of anti-hypertensive drugs is summarised as mean and standard deviation. All P values but the Total number of antihypertensive drugs were calculated by the Chi Square test. The P value of the number of antihypertensive drugs was calculated by ANOVA.

Baseline characteristics	Whole group	Baseline apnea-hypopnea index (episodes/h)			P
		<5.0	from 5 to < 15	>15	
	(n=221)	(n=166)	(n=37)	(n=18)	
Erythropoietin	10%	12%	3%	0.0%	**0.046**
Statins	42%	36%	57%	67%	**0.001**
Calcium antagonists	49%	46%	46%	78%	**0.04**
Beta-blockers	51%	51%	54%	44%	0.83
ACE inhibitors	52%	51%	46%	67%	0.47
Sympatholytic agents /vasodilators	15%	13%	16%	33%	**0.042**
Diuretics	18%	16%	27%	17%	0.43
Total number of anti-hypertensive drugs (n)	1.85±1.16	1.78±1.17	1.89±1.07	2.39±1.09	**0.046**
On anti-hypertensive treatment (%)	88%	87%	92%	94%	0.23
Cyclosporine (%)	42%	40%	43%	50%	0.43
Steroids (%)	88%	90%	81%	78%	**0.04**
Azathioprine (%)	37%	35%	43%	44%	0.27
Tacrolimus (%)	52%	52%	49%	50%	0.72
Sirolimus (%)	4%	4%	5%	0.0%	0.71
Mycophenolate(%)	48%	51%	40%	39%	0.19

Supplementary Table 2 Adjusted multiple Generalized Estimating Equations (GEE) of AHI and minimal nocturnal O_2 saturation over time**.** The model includes all univariate correlates of AHI at baseline with P≤0.10 (age, gender, diabetes as well as the BMI and eGFR and the change of sleep recorder Pamela→Somté. BMI and eGFR are tested as repeated measures). Data are regression coefficient (b), standard error (SE) and P value. * BMI and eGFR are introduced into the model as repeated measurements.

Variables (units of increase)	Apnea Hypopnea Index Regression Coefficients and 95% CI	Minimal O_2 saturation Regression Coefficients and 95% CI
Age (5 years)	**1,102 (1,022-,189),P=0.012**	**0,996 (0,992-,999),P=0.02**
Male/females	**1,841 (1,135-,984),P=0.013**	**0,979 (0,962-,997),P=0.02**
Diabetes (yes/no)	1,270 (0,503-3,203),P=0.61	0,963 (0,904-1,026),P=0.25
*BMI (1 kg/m2)	**1,109 (1,047-,174),P<0.001**	**0,993 (0,990-,996),P<0.001**
*eGFR (1 ml/min/1.73 m2)	0,999 (0,989-1,009),P=0.86	1,000 (1,000-1,000),P=0.97
Visit (0,1,2)	1,233 (1,013-,500),P=0.037	0,986 (0,972-,999),P=0.047
Change of the sleep recorder (yes/no)	**2,270 (1,511-,410),P<0.001**	0,996 (0,977-1,015),P=0.68