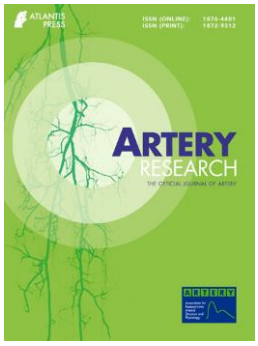

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PO-03: IMPROVEMENT IN POST-TRANSPLANT HYPERTENSION IN LIVING DONOR RENAL TRANSPLANTATION

Ekamol Tantisattamo, Weera Sukhumthammarat, Prapaipan Putthapiban, Wasawat Vutthikraivit, Siwadon Pitukweerakul

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Table 1 Cardiovascular responses to mental-stress among older men and women. (Mean ± SD).

Variable	*Men (n=46)*		*Women (n=45)*		*Effects*		
	Rest	Mental-stress	Rest	Mental-stress	Sex	Time	SxT
Brachial SP (mmHg)	124 ± 12	139 ± 16	127 ± 14	145 ± 20	**0.035**	**0.001**	0.545
Brachial DP (mmHg)	79 ± 7	86 ± 7	79 ± 7	86 ± 9	0.769	**0.001**	0.677
Brachial PP (mmHg)	45 ± 8	53 ± 12	49 ± 9	59 ± 12	**0.004**	**0.001**	0.558
Carotid SP (mmHg)	116 ± 12	129 ± 17	118 ± 13	131 ± 16	0.306	**0.001**	0.769
Carotid PP (mmHg)	37 ± 9	43 ± 14	39 ± 9	45 ± 10	0.218	**0.001**	0.903
HR ($b \cdot min^{-1}$)	60 ± 10	66 ± 10	63 ± 9	70 ± 13	**0.023**	**0.001**	0.735
PWV ($m \cdot s^{-1}$)	10.2 ± 2.6	11.2 ± 2.6	9.3 ± 2.7	10.1 ± 3.1	**0.020**	**0.023**	0.763
CCA Ep (kPa)	100.58 ± 35.40	125.01 ± 50.23	107.89 ± 46.99	123.64 ± 55.57	0.674	**0.005**	0.540

SP, systolic pressure; DP, diastolic pressure; PP, pulse pressure; HR, heart rate; PWV, pulse wave velocity; CCA, common carotid artery; Ep, elastic modulus; SxT, sex-by-time interaction.

PO-03
IMPROVEMENT IN POST-TRANSPLANT HYPERTENSION IN LIVING DONOR RENAL TRANSPLANTATION

Ekamol Tantisattamo MD, FACP, FASN, FNKF [1], Weera Sukhumthammarat DDS, MD [2], Prapaipan Putthapiban MD [3], Wasawat Vutthikraivit MD [4], Siwadon Pitukweerakul MD [5]

[1]*Multi-Organ Transplant Center, Division of Nephrology, Department of Internal Medicine, Oakland University William Beaumont School of Medicine, Royal Oak, MI, United States*

[2]*Department of Oral Medicine and Periodontics, Faculty of Dentistry, Mahidol University, Bangkok, Thailand*

[3]*Department of Pharmacology, Faculty of Sciences, Mahidol University, Bangkok, Thailand*

[4]*Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand*

[5]*Department of Internal Medicine, Presence St. Francis Hospital, Evanston, IL, United States*

Objectives: Since genetic factor determines part of hypertensive phenotype, we aim to demonstrate the role of transplanted kidney from normotensive living donors in post-transplant hypertension (HTN).

Methods: From 1.5-year-medical record review yielded 103 kidney transplant recipients in whom living-donor renal transplantation (LDRT) was performed in 32 (15 living-related renal transplantation (LRRT) and 17 living-unrelated renal transplantation (LURT)).

Results: Of all 32 recipients, mean age was 51.30 years old (21.42-79.53) and 50% were male. Mean duration of follow-up was 8.4 months (0.63-16.33). Up to 93.75% of recipients had pre-transplant hypertension, and 56.25% became non-hypertensive after transplantation, which was defined as SBP≤140, DBP≤90, or being on≤2 BP agents regardless SBP or DBP (Figure 1). Mean post-transplant systolic blood pressure (SBP) was lower than pre-transplant SBP but not statistically significant (132.88+/-2.54 vs. 134.75+/-3.01, p= 0.6366) as same as mean DBP (77.84+/-1.88 vs. 82.25+/-2.39, p= 0.1520). The number of pre- and post-transplant blood pressure medications was 1.94 and 1.28, respectively. in LRRT group, 5 of 13 (38.46%) pre-transplant hypertensive patients became normotensive while 11 of 17 (64.71%) patients in LURT group were non-hypertensive(Figure 2). Mean post-transplant SBP was higher than mean pre-transplant SBP in LRRT group (1.33.73+/-3.33 vs. 129.67+/-4.40, p=0.4680); however, mean post-transplant DBP in LRRT group (77.93+/-2.68 vs. 79.40+/-3.20, p=0.7273) as well as mean SBP (132.12+/-3.85 vs. 139.24+/-3.93, p=0.2049) and mean DBP (77.76+/-2.71 vs. 84.76+/-3.48, p=0.1223) in LURT were lower than those during pre-transplant periods. The mean number of antihypertensive medications was decreased in post-transplant compared to pre-transplant in both LRRT (1+/-0.24 vs. 1.73+/-0.33, p=0.0844) and LURT (1.53+/-0.12 vs. 2.12+/-0.28, p=0.0616) groups.

Conclusion: Hypertension was resolved in more than half of the pre-transplant hypertensive patients after kidney transplantation. Since higher number of LURT recipients becomes normotensive, the possibility of hypertensive genotype in living-related donor kidneys may contribute to post-transplant HTN in some LRRT recipients.

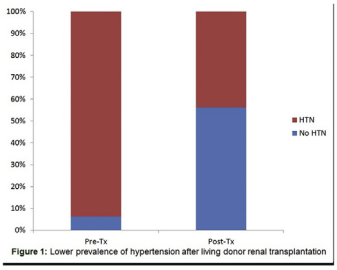

Figure 1: Lower prevalence of hypertension after living donor renal transplantation

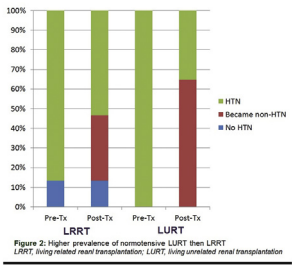

Figure 2: Higher prevalence of normotensive LURT then LRRT
LRRT, living related renal transplantation; LURT, living unrelated renal transplantation

PO-04
REBOUND WEIGHT GAIN AND BLOOD PRESSURE CONTROL AFTER LIVING KIDNEY DONATION AND KIDNEY TRANSPLANTATION

Ekamol Tantisattamo MD, FACP, FASN, FNKF [1], Weera Sukhumthammarat DDS, MD [2], Prapaipan Putthapiban MD [3], Wasawat Vutthikraivit MD [4], Siwadon Pitukweerakul MD [5]

[1]*Multi-Organ Transplant Center, Division of Nephrology, Department of Internal Medicine, Oakland University William Beaumont School of Medicine, Royal Oak, MI, United States*

[2]*Department of Oral Medicine and Periodontics, Faculty of Dentistry, Mahidol University, Bangkok, Thailand*

[3]*Department of Pharmacology, Faculty of Sciences, Mahidol University, Bangkok, Thailand*

[4]*Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand*

[5]*Department of Internal Medicine, Presence St. Francis Hospital, Evanston, IL, United States*

Objective: Overweight and obesity are known risk factors of hypertension in both donors and recipients after kidney donation and transplantation, respectively. We aim to study the correlation between blood pressure (BP) and body mass index (BMI) in donor post-donation and in recipients post-transplantation.

Methods: A consecutive 24 paired living kidney donors and recipients were reviewed. Demographic data, systolic blood pressure (SBP), diastolic blood pressure (DBP), and BMI were collected.

Results: Of all 24 donors and recipients, donor's trends to be younger than their recipients (mean age 46.54±2.81 vs. 50.32±3.16 years old). Half of the donors and 54.17% (13/24) of the recipients were male. In donor group, mean SBP, but not DBP decreased overtime after donation (SBP 125.58±2.9 vs. 123.69±1.97; p=0.5924 vs. 121.33±3.02; p=0.3181. DBP 74.92±1.7 vs. 75.73±1.12; p=0.6926 vs. 76.85±1.82; p=0.4437). However, BMI decreased at 2-week post-donation, but rebounded above pre-donation BMI at 6 months (BMI 28.19±0.87 vs. 28±0.82; p=0.8750 vs. 28.92±1.03; p=0.5884) (Figure