P108: IMPACT OF KIDNEY TRANSPLANTATION ON AORTIC STIFFNESS INDEX $\beta_0$

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To cite this article: Marie-Pier Desjardins, Aboubacar Sidibé, Catherine Fortier, Fabrice Mac-Way, Sacha De Serres, Richard Larivièr\', Bart Spronck, Mohsen Agharazii (2017) P108: IMPACT OF KIDNEY TRANSPLANTATION ON AORTIC STIFFNESS INDEX $\beta_0$, Artery Research 20:C, 91–91, DOI: https://doi.org/10.1016/j.artres.2017.10.139

To link to this article: https://doi.org/10.1016/j.artres.2017.10.139

Published online: 7 December 2019
Conclusion: Oscillometric measurement of 24-hour pulse wave velocity is a simple and valid method and has an additional predictive value for all-cause mortality in elderly patients with end-stage renal disease.

References

P108 IMPACT OF KIDNEY TRANSPLANTATION ON AORTIC STIFFNESS INDEX J0
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Purpose/ Background/ Objectives: We have shown that aortic stiffness improves as early as 3 months post-kidney transplantation (KTx). Aortic stiffness index J0, a blood pressure independent parameter, has been proposed to be a better indicator of vascular wall property. This study was designed to examine 1) the early versus late changes in aortic stiffness index J0 and 2) to define the characteristics of patients with favourable and unfavourable trajectories of aortic stiffness index J0 after KTx.

Methods: In 79 patients who underwent KTx, aortic stiffness was assessed before, 3, 6 and 24 months after KTx. Aortic stiffness was determined by carotid-femoral pulse wave velocity (cf-PWV), while aortic stiffness index J0 was obtained using a formula proposed by Spronck and colleagues. Cytokines profile was measured in plasma by ELISA.

Results: There was a reduction of J0 3 months after KTx (29.0 ± 2.0 to 25.8 ± 1.2, P = 0.033). Then, aortic stiffness index J0 gradually increased at 6 (28.0 ± 1.4, P = 0.005 vs 3 months) and 24 months (28.3 ± 1.3, P = 0.003 vs 3 months). Unfavourable progression of J0 was not related to renal function, age, comorbidities or kidney donor characteristics. However, the unfavourable progression of J0 was associated with higher levels of interleukin-6 (P = 0.029).

Conclusions: The improvement of aortic stiffness index J0 3 months after KTx suggests that KTx leads to an early improvement of the intrinsic mechanical properties of aorta. However, this improvement is followed by a late progression of J0, which is associated with increased pro-inflammatory cytokine, suggesting that activation of immune system may be involved in arterial wall remodeling in kidney transplant recipients.

P109 PROGRESSION OF AORTIC ARCH CALCIFICATION AFTER KIDNEY TRANSPLANT AND ITS IMPORTANCE IN PREDICTING CARDIOVASCULAR RISK: SINGLE-CENTER 2-YEAR FOLLOW-UP STUDY
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