

LIPIDS CONTROL AND ARTERIAL STIFFNESS IN RENAL TRANSPLANT RECIPIENTS

Z. Heleniak¹, S. Illersberger², S. Brakemeier², A. Debska-Slizieñ¹, K. Budde², F. Halleck²

1. Department of Nephrology, Transplantology and Internal Medicine, Gdansk Medical University, Poland

2. Medizinische Klinik mit Schwerpunkt Nephrologie und Internistische Intensivmedizin Charité Universitätsmedizin Berlin

Hyperlipidemia is one of the major risk factors for developing cardiovascular disease and it occurs in up to 60% of renal transplant recipients (RTRs). Lipid lowering therapy with the HMG-CoA reductase inhibitors (statins) is generally recommended and may reduce the overall cardiovascular risk.

The aim of the study was the comparison of arterial stiffness in patients with good (LDL <100mg/dl), non-HDL (<130mg/dl) and triglycerides (<150mg/dl) and bad lipids control.

344 stable RTRs (62.5% M) transplanted between 1994 and 2018 were randomly enrolled to the study. Following parameters of arterial stiffness were measured: brachial-ankle and carotid-femoral pulse waves velocities (baPWV left and right, cfPWV), pulse pressure (PP right and left). Both PWV and PP were assessed by ABI system 100. Statistical analyses were performed using the STATISTICA 13.3 PL for Windows software package.

Results:

Overall, 344 patients were enrolled to the study. 143 of 344 (41.6%) received statins (Fluvastatin was the most common administered statin (86% in this group), the mean dose was 44.7mg/day). There were following indications for statins among patients with hypolipidemic treatment: hyperlipidemia (HPL) (51.7%), primary and secondary prophylaxis in patients with cardiovascular disease (32.9%). There wasn't shown any indication in 15.4% of RTRs.

Patients who received statins were significantly more often males, suffering cardiovascular disease, having lower eGFR, higher BMI and lived longer with transplant (table 1).

There were significant differences in arterial stiffness parameters between good and bad lipids control group (table 2).

Conclusions:

1. More RTRs population with HPL and cardiovascular disease should receive statins.
2. Acceptable lipid control was present in less than 50% in RTRs regardless of statin use.
3. The levels of LDL, non-HDL and triglycerides influenced of arterial stiffness in RTRs.