P115: ALBUMIN-TO-CREATININE RATIO IS ASSOCIATED WITH TARGET ORGAN DAMAGE IN HYPERTENSION

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Abstracts

P113
DIABETIC AMBULATORY BLOOD PRESSURE PARAMETERS ARE ASSOCIATED WITH VALVE CALCIFICATION IN PATIENTS WITH END-STAGE RENAL DISEASE ON MAINTENANCE HEMODIALYSIS
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Objective: Valve calcification (VC) is common in patients on hemodialysis and increases the risk of cardiovascular morbidity and mortality. The aim of the study was to evaluate the association between VC and 44-hour ambulatory blood pressure (ABP) variables.

Materials and methods: In 68 patients with end-stage renal disease (ESRD) on maintenance hemodialysis (45.6% males, median age 58.3 (interquartile range (IQR) 54.6; 61.6) years, dialysis duration 62.7 (47.8; 77) months, echocardiography and applanation tonometry was performed.

Results: Calcification of the aortic, mitral and both valves was revealed in 46 (67.6%), 34 (50%) and 33 (48.5%) of patients. 20 (29%) patients had no signs of VC. Patients with vs without AVC were older (65.1 ± 9.5 vs 41 ± 11.9 years, p < 0.001), had higher diastolic duration (51 (6; 252) vs 21 (10; 38) months, p < 0.01), lower peripheral diastolic blood pressure (DBP) (76 ± 17 vs 84 ± 12 mmHg, p < 0.05), reflected wave transit time (RWT) (131 ± 17 vs 137 ± 15 ms, p < 0.05). Patients with vs without MVC were older (67.8 ± 8.2 vs 47.9 ± 13.5 years, p < 0.001), had higher diastolic duration (51 (34; 111) vs 36 (14; 57) months, p < 0.01), carotid-femoral pulse wave velocity (10.1 ± 2.7 vs 8.9 ± 3.5 m/s, p < 0.05), lower peripheral DBP (73 ± 17 vs 84 ± 14 mmHg, p < 0.01), central DBP (72 ± 13 vs 83 ± 13 mmHg, p < 0.001), higher central pulse pressure (52 ± 13 vs 45 ± 16 mmHg, p < 0.05), lower RWT (133 (120; 130) vs 135 (132; 142) ms, p < 0.05).

Conclusion: High prevalence of VC (71%) was revealed in patients with ESRD on maintenance hemodialysis. Patients with vs without VC were older, had higher duration of dialysis and more pronounced arterial stiffness.

P114
ARTERIAL STIFFNESS IS ASSOCIATED WITH AMBULATORY BLOOD PRESSURE PARAMETERS IN PATIENTS ON MAINTENANCE HEMODIALYSIS
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Introduction: Arterial stiffness is a principal pathogenetic mechanism of aortic systolic blood pressure (SBP) augmentation, left ventricular hypertrophy and sudden cardiac death. The aim of the study was to evaluate the association between parameters of pulse wave and 44-hour ambulatory blood pressure (ABP) variables in patients with end-stage renal disease.

Methods: In 68 patients with ESRD on maintenance hemodialysis (45.6% males, median age 58.3 (interquartile range (IQR) 54.6; 61.6) years, dialysis duration 62.7 (47.8; 77) months, echocardiography and applanation tonometry was performed.

Results: Carotid-femoral pulse wave velocity (PWV) < 10 vs PWV > 10 m/s was revealed in 52 (76.5%) of patients respectively. Patients with PWV > 10 vs < 10 m/s had higher dialysis duration (median 60; IQR 36; 84 vs 28; IQR 11; 50.5) months, p < 0.001), peripheral SBP (148 ± 24, 8 vs 140.7 ± 23.6 mmHg, p < 0.05), diastolic blood pressure (DBP) (85.7 ± 15.2 vs 83.3 ± 12.7 mmHg, p < 0.05); 48-hour heart rate (HR) (74.7 ± 13.0 vs 72 ± 8.7 bpm, p < 0.05), mean day one HR (78.7 ± 7.5 vs 72.5 ± 9.7 bpm, p < 0.05), 48-hour DBP variability (DBPV) (78 ± 13 vs 88 ± 12 mmHg, p < 0.01), day two SBP variability (13 ± 4 vs 13 ± 4 mmHg, p < 0.05), mean day two DB variability (12 ± 3.9 vs median 11.8 ± 3.6 mmHg, p < 0.05).

Patients with PWV > 10 vs <10 m/s had lower daytime DBPV (median 8.5, IQR 7; 9) vs IQR 10 (8; 11 mmHg, p < 0.05), day one DBPV (medium 8; IQR 8; 9) vs IQR 8; 10 mmHg, p < 0.01). Conclusions: Patients with PWV > 10 m/s had higher duration of dialysis, higher values of ambulatory DBP and higher — of HR. These findings may have implications in gaining further insights into the mechanism of arterial stiffness.