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In HD patients, diastolic blood pressure (BP) was lower (69 ± 14 mmHg) than in A VF patients, with mean arterial pressure and used as a surrogate index pressure, which was calibrated with mean arterial pressure and used as a surrogate index pressure. Among HD patients, 115 patients used A VF as vascular access.

Results: Visceral FMD was present in 32 patients (19.1%). Among them, 75% (n = 24) were females, the mean age was 48.6 ± 17.2 years and 96.9% of patients have multifocal FMD. 28 patients reported FMD lesions in mesenteric arteries or celiac trunk, 6 patients in splenic and 8 patients in other visceral arteries. In 28 (12.4%) patients, aneurysms were found in visceral arteries, most commonly in splenic arteries (23 pts [10.2%]). In 2 patients, aneurysms were present in more than one visceral artery. In one patient, a dissection of the celiac trunk had been identified. Patients with VA FMD most commonly presented with abdominal pain (10 patients, 31.2%). 5 (15.6%) patients suffered from weight loss and 8 (18.6%) from postprandial abdominal pain. 3 patients with VA FMD experienced emergency medicines. Two patients underwent vagotomy resection due to acute mesenteric ischemia caused by occlusion of the upper mesenteric artery and of the celiac trunk respectively. In a third patient, the primary manifestation of VA FMD was rupture of hepatic aneurysm complicated by hypovolemic shock. The aneurysm was eventually embolized, with favorable clinical outcome.

Conclusions: In ARCADIA-POL study, VAFMD was present in every fifth patient. The clinical presentations of VA FMD varied from asymptomatic lesions to emergent Medicine, Laval University, Quebec, Canada, 2Menzies Institute for Medical Research, Hobart, AUSTRALIA

Objective: Arterial reservoir-wave analysis (RAWA) is a new model of arterial hemodynamics that separates the arterial wave into reservoir pressure (RP) and excess pressure (XSP). Whether RWA parameters are different in hemodialysis (HD), as compared to peritoneal dialysis (PD), and whether any differences are due to the presence of an arteriovenous fistula (AVF) remains unknown. The aims of the present study were to examine the differences in RWA 1) in HD versus PD patients and 2) in all dialysis patients (HD+PD) without AVF versus HD patients with AVF.

Design and method: In a cross-sectional analysis of prevalent PD (n = 53) and HD (n = 208) patients, RWA was performed using pressure approach applied to the carotid pressure, which was calibrated with mean arterial pressure and used as a surrogate for central pressure. Among HD patients, 115 patients used AVF as vascular access.

Results: In HD patients, diastolic blood pressure (BP) was lower (69 ± 14 vs 77 ± 10, mmHg, p < 0.001), while systolic BP was identical, resulting in increased carotid pulse pressure (PP) (58 ± 22 vs 50 ± 22 mmHg, p = 0.036). Carotid RP and XSP integrals were higher in HD patients (2.11 ± 0.91 vs 1.89 ± 0.94, p = 0.027, 0.48 ± 0.30 vs 0.39 ± 0.27, p = 0.009). While there were no significant differences in BP medication between groups, HD patients were older and had a higher prevalence of clinical comorbidities such as diabetes and established cardiovascular disease. However, analysis of data according to AVF status resulted in homogenous groups in terms of age and comorbidities. In AVF group, dialysis vintage was higher (median 2.3 vs 1.1 years, p < 0.001), diastolic BP lower (68 ± 13 vs 72 ± 13 mmHg, p = 0.003), PP higher (59 ± 22 vs 54 ± 22, p = 0.061), and RP and XSP integrals were higher (2.2 ± 0.9 vs 2.0 ± 0.9, p = 0.048; 0.5 ± 0.3 vs 0.4 ± 0.3, p = 0.078). After adjustment for dialysis vintage, XSP was significantly higher in AVF group (p = 0.034).

Conclusions: In HD patients, RP and XSP integral were higher as compared to PD patients, but these differences were mainly due to the presence of AVF.

DISSOCIATION OF PULSE WAVE VELOCITY WITH BLOOD PRESSURE DURING DEVICE GUIDED BREATHING

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Objective: Arterial stiffness (AS) measured as carotid-femoral pulse wave velocity (cPWV) is an important determinant of cardiovascular risk closely related to arterial stiffness was measured as the ratio of the change in carotid-femoral pulse wave velocity (cPWV) for device-guided breathing (DGB) versus normal breathing (NB).

Figure. Arterial stiffness measured as the ratio of the change in carotid-femoral pulse wave velocity (cPWV) for device-guided breathing (DGB) versus normal breathing (NB).
brachial blood pressure (BP). Whether it can be changed independently of BP in the short term is uncertain but recent observations suggest that AS may be specifically modulated by the autonomic nervous system (ANS). Here we compared effects of device guided breathing (DGB, known to reduce sympathetic activity) with nifedipine on cfPWV.

**Design and method:** Patients with essential HT on pharmacological treatment (mean ± SD age 48 ± 14 years, n = 19) had cfPWV (SphygmoCor) and brachial BP (Omron) measurements performed before and after DGB and oral administration of nifedipine 10 mg. The two interventions were performed consecutively in single visit with the patient lying in supine position. DGB is a biofeedback technique which slows the breathing rate to <10 breaths/minute and decreases BP via its action on the ANS. Nifedipine is a short acting peripheral arterial vasodilator that tends to increase sympathetic activity.

**Results:** Baseline systolic BP (SBP) 150.4 ± 12.6 and diastolic BP (DBP) 89.8 ± 8.7 mmHg, heart rate (HR) 65.9 ± 11.2 bpm; cfPWV 10.3 ± 2.4 m/s. Compared to nifedipine, DGB caused less reduction of both brachial SBP and DBP: decrease of 12.3 (95%CI 8.4, 16.1) vs. 16.1 (12.7, 19.5) mmHg in SBP for DGB and nifedipine and 5.9 (3.1, 8.7) vs. 10.4 (7.1, 13.5) mmHg in DBP (P < 0.05 for difference between DGB and nifedipine). DGB caused a greater reduction in cfPWV: decrease of 1.2 (0.8, 1.8) and 0.7 (0.1, 1.3) m/s for DGB and nifedipine respectively (P = 0.02 for difference between DGB and nifedipine). HR decreased during DGB by 3.6(1.2, 5.9) bpm and increased after administration of nifedipine: 7.6(3.9, 11.3) bpm.

**Conclusions:** DGB had a greater impact on AS despite a smaller effect on BP. These results demonstrate that cfPWV can be changed independently from BP in the short-term and support a specific role of the ANS in regulating cfPWV.