of borderline significance, HR 1.85 (95%CI: 0.91–3.78, p = 0.09). After adjustment for FH+, c-f PWV had a borderline significant relationship with non-CV mortality, SHR 2.30 (95%CI: 0.89–5.95, p = 0.085).

Conclusions: Arterial stiffness (c-f PWV) predicts total mortality in the elderly, even adjusted for family history of cardiometabolic disease. Thus c-f PWV is a promising risk marker for total mortality, reflecting vascular ageing (arterial stiffness), beyond the prediction offered by conventional risk factors. Updated endpoints will be included during spring 2018.

PULSE WAVE VELOCITY PROGRESSIONE OVER A 3.7 YEARS FOLLOW-UP: FOCUS ON METABOLIC SYNDROME

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Objective: The role of classic cardiovascular risk factors on the progression of arterial stiffness has not yet been extensively evaluated particularly regarding Metabolic Syndrome (MS). The aim of the current longitudinal study was to evaluate the determinants of the Pulse Wave Velocity (PWV) progression over a 3.7 years follow-up period in hypertensive subjects focusing on metabolic syndrome.

Design and method: We enrolled 448 consecutive hypertensive outpatients 18–80 aged, followed by the Hypertension Unit of St. Gerardo Hospital (Monza, Italy). At baseline anamnestic, Blood Pressure (BP) and laboratory data as well as cf-PWV were assessed. We performed PWV again at a follow-up examination with a median time amounting to 3.7 ± 0.5 years. NCPET-ATPIII criteria were used to define MS as the presence of three or more item. Data are reported as mean ± SE.

Results: At T0 the mean age was 53.7 ± 1.1 years, SBP and DBP were 141.3 ± 1.7 and 86.4 ± 1.2 mmHg and PWV was 8.5 ± 0.15 m/s. 125 patients (27.9%) meet the criteria for MS. Those patients were older (56.3 ± 1.0 vs 52.7 ± 0.7, p = 0.007) with superimposable baseline SBP and DBP values (141.4 ± 1/87.2 ± 0.6 vs 142.4 ± 1.6/86 ± 1, p > 0.05 for both comparison) as well as PWV values (8.7 ± 0.18 vs 8.58 ± 0.1, p = 0.43). At follow-up examination MS subjects showed a lower decreas in SBP/DBP (SBP: -4.7 ± 1.7 vs -10.2 ± 1.1; DBP: -5.1 ± 1.1 vs -8.3 ± 0.7, p < 0.01 for both comparison) with a higher increase in PWV values (1.1 ± 0.2 vs 0.39 ± 0.1, p = 0.03). This difference remain significant also in a multivariate model with age, sex, smoking, baseline PWV and delta MBP as covariates.

Conclusions: arterial aging and BP values in treated hypertensive subjects during a 3.7 years follow-up seems to be influenced by the presence of MS. In fact subjects with MS showed a worse BP control and an increase in PWV values during the follow-up. PWV changes over time would probably give important information that need further future research studies.

CHILDHOOD-ONSET TAKAYASU ARTERITIS IN COMPARISON WITH ADULT-ONSET TAKAYASU ARTERITIS

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Objective: The study aims to investigate clinical, diagnostic and therapeutic algorithm of childhood-onset Takayasu arteritis(c-TA) compared with TA in adults.

Design and method: Records were analyzed of patients with TA onset at age lower than 18 and over 18, hospitalized in Fuwai Hospital from 2001 to 2014. TA was diagnosed according to the diagnostic criteria recommended by ACR (1990) and the EULAR/ PRINTO/ PRES (2010). Data collected were clinical, laboratory, imaging features, treatments and outcomes.

Results: A. total of 136 c-TA. patients (female to male, 3.1 to 1; mean age, 14.7 ± 3.2 years) and 468 adult-onset TA. patients (F/M, 3.8 to 1) were enrolled with a delay to diagnosis of 6.2 ± 9.2 and 5.6 ± 8.0 years, respectively(p > 0.05). The most common presentations among c-TA. were hypertension (HTN, 78.5%), dizziness (40.3%) and claudication (33.3%). HTN. was more popular with higher DBP. compared with adults (HTN, 78.5% and 60.5%; secondary HTN, 75% and 56.8%; highest DBP, 111.3 ± 29.0mmHg and 99.5 ± 33.9mmHg; baseline DBP, 88.8 ± 27.1mmHg and 77.8 ± 27.3mmHg; p < 0.05). The superior causes of hypertension were renal artery and aortic involvement (55.9%, 32.4%). Bruits and decreased pulse presented in 68.4% and 45.9% cases. Active disease according to NIH. criteria was found in 28.7%. Higher level of neutrophils, anti streptolysin, NTpro-BNP. and lower level of glucose, triglyceride, albumin among c-TA. were significantly measured(p < 0.05). DSA, CTA. and MRA. were performed in 66.2%, 20.6% and 5.1%. Right or left renal artery (50.4%; 48.8%), left subclavian artery (46.5%), left common carotid artery (37.2%), thoracic aorta (35.7%) and abdominal aorta (35.7%) were commonly involved. Renal artery and right coronary artery involvement were more frequent than in adults(p < 0.05). Glucocorticoids, anti-hypertensive(particularly CCB. and beta-blockers) and antiplatelet drugs were prescribed in 59.8%, 76.5% and 68.2% patients. During a follow-up of 5.1 ± 3.4 years, [4]patients died, including 2 heart failure, one intracerebral hemorrhage and one pulmonary involvement.

Conclusions: This is the largest cohort of c-TA patients. Hypertension is the major clinical feature of c-TA generally with renal artery or descending aorta involvement. Steroids, anti-hypertensive and antiplatelet medications are common prescriptions. The remarkable delayed diagnosis should not be ignored.

INFLUENCE OF HIV INFECTION AND ANTIRETROVIRAL THERAPY ON AORTIC STIFFNESS: A META-ANALYSIS

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Objective: A growing body of evidence indicates that risk of CV events is higher in HIV-infected patients (HIV+) when compared to HIV-uninfected persons (HIV-). This enhanced risk may in part be mediated through preclinical CV damage. Large artery stiffness, a well-documented marker of arterial damage and predictor of adverse CV prognosis, is usually assessed by measuring aortic pulse wave velocity (PWV). Several studies examined arterial stiffness in HIV+ with inconsistent results. In a previous meta-analysis, showing increased arterial stiffness in HIV+ than in HIV- subjects, studies assessing aortic and peripheral PWV were pooled together. This may be misleading, because only the former has a demonstrated prognostic significance.
We performed a new meta-analysis with the aim to evaluate the influence of HIV-infection and its therapy only on aortic PWV (aPWV).

Design and method: A literature search was performed in PubMed, Google Scholar, Web of Science and Medline for articles, also in abstract form, concerning the effect of HIV infection and ART on aortic stiffness. The standardized mean difference (SMD) and corresponding 95% confidence intervals were calculated for aortic PWV in different comparison groups, which contained naive HIV+ versus HIV-, HIV+ receiving ART versus HIV- and HIV+ receiving ART versus naive HIV+. Statistical heterogeneity, assessed by Q test and I2 statistic, was observed in all these comparisons. Therefore, both the fixed and random effect models were implemented, even if only the results of the latter were presented.

Results: In a total of 11 studies, naive HIV+ (n = 566) showed increased aPWV compared to HIV- (n = 816): SMD = 0.386 (0.197–0.575), p < 0.001. Nine studies were identified comparing HIV+ treated with ART (n = 631) to HIV- (n = 637) showing higher values of aPWV in the former than in latter: SMD = 0.681 (0.396–0.967), p < 0.001. In 8 studies HIV+ treated with ART (n = 599) exhibited greater aPWV values than those of naive HIV+ (n = 325): SMD = 0.259 (0.006–0.512), p < 0.04.

Conclusions: Our meta-analysis seems to suggest that HIV infection per se and even more ART may impair aortic distensibility.

FREQUENCY OF CERVICAL AND INTRACRANIAL ARTERIES LESIONS AND ASSOCIATED CLINICAL SYMPTOMS IN PATIENTS WITH CONFIRMED RENAL FIBROMUSCULAR DYSPLASIA - ARCADIA-POL STUDY

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Objective: To assess the frequency of cervical and intracranial arteries involvement and associated clinical symptoms in consecutive patients with renal fibromuscular dysplasia (FMD) enrolled into ARCADIA-POL study.

Design and method: From 183 patients with FMD enrolled into ARCADIA-POL study since 2015 (Polish-French collaboration) all consecutive 157 patients