编号：**YY001-20190902001**

标题：**Decline in ankle-brachial index is stronger in poorly than in well controlled diabetes: Results from the Heinz Nixdorf Recall cohort study**

简介：Background and aims

The ankle-brachial index (ABI) is a marker of atherosclerosis and a diagnostic criterion for peripheral arterial disease (PAD). We studied the association between HbA1c and ABI in subjects with and without diabetes.

Methods

In the Heinz Nixdorf Recall Study, a population-based cohort study in Germany (N = 4,814, age 45–75 years), ABI was measured at baseline, at 5- and 10-year follow-up. Subjects with ABI <0.9, ABI >1.4 or self-reported PAD at baseline were excluded from analyses. In 3199 participants, we assessed associations between HbA1c and incident PAD (ABI < 0.9) and change in ABI, respectively, using logistic and linear regression models. Subjects without diabetes, with HbA1c < 5.7% were used as reference group.

Results

Compared to the reference group, 10-year decline in ABI was −0.066 (95% confidence interval: −0.117; −0.016) and −0.021 (−0.063; 0.021) in subjects with poorly (≥7.0% HbA1c) and well (<7.0% HbA1c) controlled previously known diabetes; −0.010 (−0.054; 0.034) in those with newly detected diabetes diagnosed by HbA1c ≥ 6.5%, and −0.005 (−0.023; 0.013) in those without diabetes, with HbA1c 5.7–6.4%. For poorly controlled diabetes, odds ratios for low ABI (<0.9) were 3.5 (1.6–7.9), and 3.1 (1.3–7.0) after 5- and 10-year follow-up, respectively. The incidence of Mönckeberg disease (ABI > 1.4) was low (6/288 (2.4%) over 5 years).

Conclusions

Decline in ABI was stronger in poorly than well-controlled diabetes. Subjects with newly detected diabetes diagnosed by the new HbA1c criterion (≥6.5%) did not show an increased decline in ABI over 10 years.

全文链接：http://pan.ckcest.cn/rcservice//doc?doc_id=42370

编号：**YY001-20190902002**

标题：**Statin and clinical outcomes of primary prevention in individuals aged >75 years: The SCOPE-75 study**

简介：Background and aims

Limited data is available on the benefit of statin for primary prevention in the elderly. The aim of this study is to investigate whether statin for primary prevention is effective in lowering the cardiovascular risk and all-cause death in individuals aged >75 years.

Methods

This was a retrospective, propensity score-matched study and data were acquired between 2005 and 2016 in a tertiary university hospital. Of the 6414 patients screened, 1559 statin-naïve patients without a history of atherosclerotic cardiovascular disease before the index visit were included. After propensity score matching, 1278 patients (639 statin users, 639 statin non-users) were finally analyzed. Primary outcome variables included

major adverse cardiovascular and cerebrovascular events (MACCE) and all-cause death. MACCE included cardiovascular death, nonfatal myocardial infarction, coronary revascularization, and nonfatal stroke or transient ischemic attack.

Results
At a median follow-up of 5.2 years, statin users had lower rates of MACCE (2.15 vs. 1.25 events/100 person-years; hazard ratio, 0.59; p = 0.005) and all-cause death (1.19 vs. 0.65 events/100 person-years; hazard ratio, 0.56; p = 0.02), as well as lower levels of low-density lipoprotein-cholesterol than did non-users. The Kaplan-Meier curves revealed lower event rates in statin users (hazard ratio: 0.59 for MACCE and 0.56 for all-cause death). The incidence of myocardial infarction and coronary revascularization were lower in statin users.

Conclusions
Statin therapy for primary prevention was clearly associated with lower risk of cardiovascular events and all-cause death in individuals aged >75 years. These results support more active statin use in this population.
全文链接：http://pan.ckcest.cn/rcservice//doc?doc_id=42371

编号：**YY001-20190902003**
标题：**Association of ideal cardiovascular health metrics with serum uric acid, inflammation and atherogenic index of plasma: A population-based survey**
简介：Background and aims
We aimed to evaluate the link between inflammatory score [consisting of C-reactive protein (CRP) and white blood cells], serum uric acid (SUA) and atherogenic index of plasma (AIP) and the cardiovascular health (CVH) score.

Methods
We used the cross-sectional National Health and Nutrition Examination Survey database. Statistical analyses accounted for the survey design and sample weights.

Results
Overall, there were 23,004 participants (mean age = 47.2 years, 46.5% males). Participants with an ideal CVH level had the highest ratio of poverty to income (3.62%, p < 0.001), as well as lower levels of CRP, SUA and AIP (p < 0.001 for all comparisons). In adjusted linear regression, a significant negative association was observed between inflammatory score ($\beta = -0.052$, p < 0.001), SUA ($\beta = -0.041$, p < 0.001) and AIP ($\beta = -0.039$, p < 0.001) and CVH score, i.e. participants with a better (greater) CVH score had a lower inflammatory score. Results from adjusted logistic regression showed reduction in the likelihood of "high-risk atherosclerosis" (defined as AIP ≥0.21) [intermediate: odds ratio (OR) = 0.90, 95% confidence interval (CI):0.85–0.95, ideal: OR = 0.81, 95%CI: 0.74–0.88] and "high CVD risk" (defined as CRP ≥3 mg/l) [intermediate: OR = 0.86, 95%CI:0.73–0.98, ideal: OR = 0.82, 95%CI:0.69–0.95] across the categories of CVH.

Conclusions

Our findings highlight that CVH metrics were associated with inflammatory score, SUA and AIP. Furthermore, participants with a better CVH score had a lower CVD risk. These results reinforce the importance of implementing healthy behaviours as proposed by the American Heart Association. If confirmed in clinical trials, this knowledge may have implications for CVD prevention and management.

全文链接：http://pan.ckcest.cn/rcservice//doc?doc_id=42369

编号：YY001-20190902004

标题：**Non-alcoholic fatty liver disease presence and severity are associated with aortic stiffness beyond abdominal obesity: The ELSA-Brasil**

简介：Background and aims

It is uncertain whether non-alcoholic fatty liver disease (NAFLD) is associated with aortic stiffness in a racial/ethnically diverse and admixed society. We addressed whether NAFLD presence and severity were associated with carotid-femoral pulse wave velocity (cf-PWV) in individuals free of cardiovascular disease.

Methods

In 7196 individuals free of cardiovascular disease at the baseline Brazilian longitudinal study of adult health, we classified NAFLD presence and severity (mild, moderate and severe) by ultrasound hepatic attenuation. We measured cf-PWV using a non-invasive validated device (Complior SP, Artech Medicale France). We compared cf-PWV of NAFLD individuals to those without by analysis of covariance adjusted for demographics, life style, waist circumference, and arterial pressure. We also analyzed the cf-PWV trend from no-NAFLD to severe NAFLD.

Results

In unadjusted analysis, from no-NAFLD to severe NAFLD, there were slightly older individuals, lower frequency of smokers, more prevalent diabetes and hypertension. In adjusted analysis, there was slightly higher cf-PWV (m/s) (95%CI) in NAFLD vs. no-NAFLD, respectively 9.32 (9.22, 9.41) and 9.24 (9.15, 9.33) (p = 0.037). Across NAFLD severity spectrum, adjusted cf-PWV increased from 9.24 (9.15, 9.33) in no-NAFLD to 9.69 (9.46, 9.93) in severe NAFLD (p for trend association = 0.001). In sensitivity analysis, diabetes adjustment nullified the association of binary NAFLD with cf-PWV, but not that of increasingly severe NAFLD.

Conclusions

In racial/ethnically diverse individuals free of cardiovascular disease, NAFLD is associated with aortic stiffness beyond abdominal obesity. The specific NAFLD impact on CVD worldwide is potentially relevant.

全文链接：http://pan.ckcest.cn/rcservice//doc?doc_id=42372

编号：YY001-20190902005

标题：**Normal serum ApoB48 and red cells vitamin E concentrations after supplementation in a novel compound heterozygous case of abetalipoproteinemia**

简介：Background and aims

Abetalipoproteinemia (ABL) is a rare recessive monogenic disease due to MTTP (microsomal triglyceride transfer protein) mutations leading to the absence of plasma apoB-containing lipoproteins. Here we characterize a new ABL case with usual clinical phenotype, hypocholesterolemia, hypotriglyceridemia but normal serum apolipoprotein B48 (apoB48) and red blood cell vitamin E concentrations.

Methods
Histology and MTP activity measurements were performed on intestinal biopsies. Mutations in MTTP were identified by Sanger sequencing, quantitative digital droplet and long-range PCR. Functional consequences of the variants were studied in vitro using a minigene splicing assay, measurement of MTP activity and apoB48 secretion.

Results
Intestinal steatosis and the absence of measurable lipid transfer activity in intestinal protein extract supported the diagnosis of ABL. A novel MTTP c.1868G>T variant inherited from the patient's father was identified. This variant gives rise to three mRNA transcripts: one normally spliced, found at a low frequency in intestinal biopsy, carrying the p.(Arg623Leu) missense variant, producing in vitro 65% of normal MTP activity and apoB48 secretion, and two abnormally spliced transcripts resulting in a non-functional MTP protein. Digital droplet PCR and long-range sequencing revealed a previously described c.1067+1217_1141del allele inherited from the mother, removing exon 10. Thus, the patient is compound heterozygous for two dysfunctional MTTP alleles. The p.(Arg623Leu) variant may maintain residual secretion of apoB48.

Conclusions
Complex cases of primary dyslipidemia require the use of a cascade of different methodologies to establish the diagnosis in patients with non-classical biological phenotypes and provide better knowledge on the regulation of lipid metabolism.
全文链接：http://pan.ckcest.cn/rcservice//doc?doc_id=42373