shown to correlate with impulsivity, with highly suggestible individuals being more likely to make impulsive decisions influenced by peer groups. However, the relationship between social influence and drinking behavior is unclear. Our objective was to describe the relationship between social influence and impulsivity traits using the social delayed discounting task and potential differences in intravenous alcohol self-administration (IV-ASA) behavior. METHODS/STUDY POPULATION: Healthy, non-dependent drinkers (n = 20) completed a CAIS session, which consisted of an initial 25-minute priming phase, where subjects were prompted to push a button to receive individually standardized IV alcohol infusions, followed by a 125-minute phase during which they could push the button for additional infusions. IV-ASA measures included the peak (PEAK) and average (AVG) BrAC and Number of Button Presses (NBP). Participants completed a social delayed discounting task (SDDT), where participants were presented with the choice of a small, sooner (SS) reward or a large, later (LL) reward. Before starting the task, participants chose peers who selected either the impulsive (SI) or non-impulsive choice (S). Intermittently, the peers' choice was not shown (X) or different choices (D) were selected. Participants also completed the MISS, the Barratt Impulsiveness Scale (BIS-11), UPPS-P Impulsive Behavior Scale, and the NEO personality inventory. RESULTS/ANTICIPATED RESULTS: Participants with higher suggestibility scores had greater NBP, AVG, and PEAK BrAC in the early phase of the IV-ASA session. Higher scores on the MISS were also correlated with higher impulsivity scores including the NEO Neuroticism (N-factor) measure, BIS-11, and UPPS-P. Results also showed that the MISS score was inversely correlated with the percent of impulsive choices in the SDDT, but that this was independent of peers' impulsive or nonimpulsive choices. DISCUSSION/SIGNIFICANCE OF IMPACT: These results indicate that non-dependent drinkers that were more susceptible to social influence had heavier drinking patterns, higher IV-ASA, and higher scores on impulsivity measures. In addition, individuals that were more susceptible to social influence made more impulsive choices in general, but those choices were not affected by peer decisions during the task. As such, susceptibility to social influence may be an important determinant of impulsive choices, particularly in relation to alcohol consumption.

2285

Analysis of racial disparity in the whole blood and plasma of healthy volunteers using rotational thromboelastometry

Maissaa Janbain, Anita Madison and Cindy Leissinger

OBJECTIVES/SPECIFIC AIMS: To explore the racial differences in rotational thromboelastometry findings using whole blood and plasma samples from healthy volunteers. METHODS/STUDY POPULATION: We studied a cohort of patients at Tulane University Hospitals who came into the pre-op clinic to get blood drawn for labs. The cohort included a total of 44 patients who were otherwise healthy adult volunteers with no history of cardiovascular nor thromboembolic events, 30 African Americans and 14 Caucasians. Patients who required lab work for their upcoming surgery were asked to participate in the study by giving a sample of blood collecting in a light blue-top sodium citrate tube. We excluded patients who were currently on any anticoagulation or antiplatelet medications. We also excluded those with current or previous history of cancer, those with known bleeding disorder, and those who were on chronic transfusion protocol, or had received a blood transfusion within the last 21 days. Data collection was carried out after informed consent was obtained; we collected citrated whole-blood (WB) samples. WB samples were processed within 3 hours of phlebotomy. Platelet free plasma, obtained after centrifugation at 2500 cGy of whole blood for 20 minutes, was kept frozen at −70°C. Frozen plasma was thawed at 37°C for 5 minutes before testing. Samples were recalcified with star-tem reagent, and then the in-tem reagent was added. The latter contains an optimized concentration of ellagic acid and partial thromboplastin phospholipid from rabbit brain. Thromboelastometry (ROTEM) parameters including clotting time, clot formation time, alpha angle, maximum clot firmness, and Lysis Index after 30 and 45 minutes were determined. Data was then retrieved from the ROTEM database and put into an Excel sheet to be analyzed. RESULTS/ANTICIPATED RESULTS: Our results showed that the CFT was higher in both the plasma and the WB of Caucasians when compared with African Americans with a difference between means 137.5 ± 233.7 ($p = 0.56$) and 11 ± 7.85 ($p = 0.168$), respectively; while MCF was increased in the WB and plasma of AA with a difference between means of 1.719 ± 1.974 ($p = 0.38$) and 5.37 ± 2.49 ($p = 0.037$), respectively. In other words, the plasma of Caucasians did seem to take longer to reach the maximum firmness (however not statistically significant $p > 0.05$), while the maximum clot firmness was significantly higher in plasma of AA. In summary and compatibly with the previously published data, our results showed significantly increased prothrombotic profile in the plasma of African Americans when compared with Caucasians. DISCUSSION/SIGNIFICANCE OF IMPACT: This reinforces the role of the whole vascular system and the interaction between its different components in the pathophysiology of thromboembolic events. In one case control study, African ethnicity was associated with increased risk of DVT in parallel with significantly increased peak thrombin on thrombin generation when compared with Caucasians. With our preliminary results, we confirm these data using another tool for the assessment of the plasma in addition to comparing WB samples too. More prospective studies, with higher number of subjects evaluating the value of the results in predicting the risk of development of thromboembolic events in different ethnicities, are needed for better understanding of this disease. In addition, thromboelastometry might require adjustment for ethnicity in studies evaluating ethnically diverse populations.

2304

Identifying optimal multiple sclerosis (MS)-specific atrophy markers as primary endpoint for Phase II s in progressive MS

Christina Azevedo, Steven Cen, Ling Zheng and Pelletier Amirhossein Jaberzadeh

OBJECTIVES/SPECIFIC AIMS: To identify brain regions with the highest and least variable rate of multiple sclerosis (MS)-specific atrophy using an agnostic approach, and to perform simulation-based sample size calculations for Phase II s using these regions as primary endpoint. METHODS/STUDY POPULATION: In total, 601 subjects (2638 MRI scans) were analyzed; 520 subjects with relapsing forms of MS across the spectrum of disease severity and duration were followed in a single-center prospective cohort study at an academic MS Center between 2005 and 2010 with annual 3 T MRIs and clinical visits for 5 years, including standardized 1 mm^3 3D T1-weighted images (3DT1s; 2483 MRIs). Separately, a convenience sample of 81 healthy controls (HC) was recruited from the same center and scanned longitudinally using the same MRI scanner and protocol (155 MRIs). 3DT1s were processed using FreeSurfer's longitudinal pipeline (software version 5.3). Rates of change in all cortical and subcortical regions (n = 119 brain regions) were estimated in MS patients and HC with linear mixed effects models. An effect size was calculated for each region as the difference in change over time between MS patients and HC divided by the standard error of the difference [$d = \beta$ (MS × time)/SE β(MS × time)]. Regions were ranked according to absolute effect size, and the top regions were chosen for simulation-based sample size calculations to estimate the number of subjects needed to achieve 80% power to detect a slowing of MS atrophy down to normal aging, assuming significance levels of 5% and 10%. Ten percent was included because some have advocated for a more relaxed alpha in Phase II s. RESULTS/ANTICIPATED RESULTS: Four regions (putamen, subcortical grey matter, caudate, and thalamus) yielded the smallest sample sizes. At 80% power, ~50 subjects per arm would be needed with putamen or subcortical grey matter volume, or ~80–85 subjects per arm with caudate or thalamic volume as primary endpoint. For the remaining regions, >140 subjects per arm would be needed. A 20%–30% increase in sample size was observed when $\alpha = 5\%$ was used. DISCUSSION/SIGNIFICANCE OF IMPACT: Using an agnostic approach considering all brain regions and simulation-based sample size calculations specifically designed for longitudinal studies, putaminal, subcortical grey, caudate, and thalamic volumes are sensitive to change over time and yield feasible sample sizes for Phase II studies in MS. Because the effect size estimates incorporate normal aging, these regions represent the most sensitive outcomes for testing therapeutic interventions that target irreversible, MS-specific brain atrophy. The clinical relevance of these regions is our next focus to help inform which of these regions should be favored as primary endpoint.

2311

Coronary artery calcification on nongated CT scan predicts mortality and acute myocardial infarction after sepsis

Vedant Arun Gupta, Matthew Sousa, Rahul Annabathula, Steve Leung and Vincent L. Sorrell

Center for Clinical and Translational Science, University of Kentucky, Lexington, KY, USA

OBJECTIVES/SPECIFIC AIMS: Cardiac complications are common after hospital admission for sepsis, and elevated troponin has been associated with increased all-cause mortality. However, little is known about clinical or imaging factors that predict these cardiac events. Coronary artery calcification (CAC) is an easily identifiable imaging finding, even on nongated CT scans. The goal of this study is to identify if CAC predicts all cause mortality and acute myocardial infarction. METHODS/STUDY POPULATION: This is a single center, nonconcurrent cohort study including 899 patients who were admitted for sepsis and had a detectable TnI level from January 2013 to December 2013.

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