Aerobic training improves cognitive and brain outcomes across different populations and neurocognitive disorders of aging, including mild subcortical ischemic vascular cognitive impairment (SIVCI). However, little is known of the underlying mechanisms through which aerobic training exerts its beneficial effects on the brain. Recently, S100 calcium-binding protein B (S100B) has been proposed as a possible mediator of aerobic training. At low levels, S100B is neurotrophic but at higher levels it is neurotoxic. Elevated levels of S100B have been associated with decreased performance on measures of global cognitive function. Thus, we conducted a secondary analysis of data collected from the proof-of-concept single-blind randomized controlled trial (NCT01027858) in older adults with mild SIVCI to determine whether the beneficial effects of 6-months, thrice weekly, moderate intensity aerobic training on cognitive performance is related to changes in S100B levels. In a subsample of 45 participants, blood samples were collected both before and after trial completion. Global cognitive function was assessed using Mini Mental State Examination (MMSE). At trial completion, aerobic training decreased circulating levels of S100B compared with usual care plus education ($F(1,41) = 6.673$, $p = 0.013$, $\eta p2 = 0.140$; Figure 1). Furthermore, reduced S100B levels were associated with improved global cognitive function in those who received the aerobic exercise intervention (partial $r = -0.519$, $p = 0.023$). Together these findings suggest that S100B is a promising target mediating the beneficial effects of moderate-intensity aerobic training on brain health in older adults with mild SIVCI.

ACTIVITY EFFORT, SELF-MANAGEMENT AND INFLAMMATION IN OLDER MEXICAN AMERICANS WITH OSTEOARTHRITIS

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We extend our ongoing investigations of the health effects of activity effort among Mexican Americans (MA) with mobility limitations, specifically those with osteoarthritis (OA) (Harrison, 2009). Our previous research linked activity effort with co-morbidity and social participation in women with mobility limitations, finding significant variations between Non-Hispanic White and MA with physical disabilities. This bio-behavioral study takes the next step by examining the relationships between inflammatory measures (TNF-alpha & CRP), Mexican American-specific self-management behaviors (MA-SM), and activity effort (AE) in a sample of MA men and women. Over 5 months, 62 men and women, age 40 to 83, provided survey responses, blood, and saliva for analysis. After ensuring reliability of measures, we used Pearson correlations to provide initial associations. Findings indicated a significant negative correlation between AE and TNF-alpha (-.376, 0.005), which linked behaviors to inflammatory response; and between MA-SM and AE (-.254, 0.05), which linked the self-management to the behavior. These findings provide support for the biological impact of perceived activity effort on inflammation, as well as the positive effects that Mexican American specific self-management activities might have on health.

AGE-RELATED FUNCTIONAL RESERVE DECLINE IS NOT SEEN IN PHARYNGEAL SWALLOWING PRESSURES

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Age-related decline in functional reserve has been described in tongue strength: tongue pressure during swallowing does not change with age, but maximal-effort isometric tongue pressure decreases with age. Healthy persons show a slight increase in pharyngeal swallowing pressure with age, but it is unknown if there is a similar decline in functional reserve. Fifty-six healthy adults (n=38 60 years) underwent pharyngeal high-resolution manometry during effortful and normal-effort thin liquid swallows. Repeated measures ANOVAs were performed on maximum pressures, pharyngeal contractile integral (PCI), pharyngeal pressure gradients, and upper esophageal sphincter minimum pressures. We hypothesized that older individuals would generate a less-robust pressure increase with effortful swallowing than younger individuals. Maximum pressures, PCI, and gradients increase during effortful swallowing ($p<0.001$), but there was no interaction effect with age, suggesting a lack of age-related functional reserve decline. Older individuals had greater UES minimum pressures than younger individuals in the effortful swallowing task ($p=0.03$), which may stem from reduced muscular compliance in this area. These findings do not align with those reported in tongue pressures, suggesting that muscle properties and pressure generation may be fundamentally different between the pharynx and the oral tongue. Alternatively, the effortful swallowing task may not elicit maximum contractility of the pharyngeal musculature. The preserved ability to increase pharyngeal pressure during effortful swallowing may support the use of the effortful swallow exercise in older adults with swallowing disorders.

SESSION 925 (POSTER)

SOCIAL NETWORKS AND SUPPORT

CHATTIER WITH FRIENDS: OLDER ADULTS' DAILY SOCIAL CONTACT AND CONVERSATION

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Studies suggest conversation improves cognitive skills among older adults. While contact with family members is common in late life, contact with friends and acquaintances is relatively less frequent. Yet, we know little about how often older adults engage in conversation when they have contact with different social partners. This study used data from the Daily Experiences and Well-being Study to investigate how older adults talk with different social partners on a daily basis. Participants (N = 303) completed an initial interview about their social partners and reported on their