

> 1 SMBP measure/day was 3 days/week. Women (n= 22, 88%) and Black participants (n= 15, 60%) were more likely to continue taking their home blood pressure measurements to End-of-Study (p=.002, p=.037, respectively). DISCUSSION/SIGNIFICANCE: This study provides the first data to support the potential of DASH as part of an effective community-implemented program for seniors and demonstrates the feasibility of implementing a multi-component intervention using existing congregate meal programs at senior centers that can reach minority and low-income communities.

Precision Medicine/Health

292

Fibromyalgias and Glucocorticoid Persistence Among Patients with Rheumatoid Arthritis

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OBJECTIVES/GOALS: Over 30% of patients with rheumatoid arthritis (RA) exhibit fibromyalgias, a symptom cluster associated with increased pain sensitivity. Up to half of RA patients use oral glucocorticoids (GCs) long-term despite their known, dose-dependent toxicity. We examined the association between fibromyalgias and oral GC persistence in RA patients. METHODS/STUDY POPULATION: We used data from the Central Pain in Rheumatoid Arthritis (CPIRA) cohort to follow participants with active RA on oral prednisone who initiated a new disease-modifying anti-rheumatic drug. We measured fibromyalgias using the Fibromyalgia Survey Questionnaire (FSQ), previously shown to correlate with key fibromyalgia features often superimposed upon RA. We stratified fibromyalgias severity as follows: FSQ<8 low, 8-10 moderate, >10 high/very high. We defined GC persistence as GC use at 3 month followup visit. We assessed the association between baseline fibromyalgias (exposure) and GC persistence at followup (outcome) using multiple logistic regression, adjusted for demographics, RA duration, serostatus, and inflammatory activity measured by swollen joint count and C reactive protein. RESULTS/ANTICIPATED RESULTS: Of 97 participants on prednisone at baseline, 65% were taking prednisone at follow-up. Fifty-seven percent of participants with low baseline fibromyalgias had persistent GC use, compared to 84% with high or very high fibromyalgias. After adjustment as outlined above, participants with high/very high baseline fibromyalgias remained more likely to be on prednisone at follow-up, relative to those with low fibromyalgias (OR 4.99 [95% CI 1.20 – 20.73]). DISCUSSION/SIGNIFICANCE: In this cohort of patients with active RA, high fibromyalgias is associated with persistent GC use, independent of inflammatory activity. This finding suggests non-inflammatory pain related to fibromyalgias may be misclassified as inflammatory pain related to RA disease activity.

297

The Acute to Chronic Pain Signatures Program (A2CPS): Conceptual Design and Protocol Implementation of a Multi-site Observational Study Assessing Risk and Resilience Biomarkers

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OBJECTIVES/GOALS: The A2CPS was funded by the National Institutes of Health (NIH) Common Fund to identify biomarkers and their collective biosignatures (combination of several biomarkers) that predict susceptibility or resilience to the development of chronic pain. METHODS/STUDY POPULATION: The A2CPS includes 2-Multisite Clinical Centers (10 recruitment sites and 6 data collection sites), 1-Clinical Coordinating Center, 1-Data Integration and Resource Center, 3-Omics Data Generation Centers, and representation from the NIH. The A2CPS will recruit a large cohort from 2 different surgical interventions, total knee arthroplasty (n?1800) and thoracotomy (n?1800). This observational study will collect candidate and exploratory biomarkers across the following domains: clinical pain, fatigue, function, sleep, psychosocial, genomics, proteomics, metabolomics, lipidomics, pain sensitivity, and brain imaging. Data will be collected before and up to 3 months after surgery to determine factors that predict chronic pain at 6 months. RESULTS/ANTICIPATED RESULTS: Recruitment started in 2021 following standard operating procedures and is ongoing at both Multisite Clinical Centers. The A2CPS will provide an example of collaborative, multidisciplinary efforts in establishing a data repository consisting of biopsychosocial markers that will be available to the research community to test novel hypotheses. This presentation will describe the conceptual design, study aims, biomarker selection, protocol standardization and study implementation for the A2CPS. An update on study progress and data completeness will be presented. Final results will be reported after study completion which is anticipated by 2024. DISCUSSION/SIGNIFICANCE: Identifying biomarkers and biosignatures that predict high- versus low-risk for the transition to chronic pain will inform future clinical trials, identify novel therapeutic targets, and advance personalized pain treatment strategies; ultimately transforming the prevention and treatment of chronic postsurgical pain.

298

Feasibility of A Dietary Sodium Reduction Intervention Using mHealth Technology to Improve Adherence in Hypertensive Patients

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OBJECTIVES/GOALS: Despite the large body of evidence concerning the effects of dietary interventions on blood pressure, trials have often reported poor adherence to sodium restriction. We implemented the Sodium Watcher Program-Hypertension (SWPH) program using digital self-monitoring. The purpose of this study was to determine the feasibility of the SWPH program. METHODS/STUDY POPULATION: The SWPH is a pilot two-arm, 2-month randomized controlled trial that enrolls adults with hypertension. The intervention group received personalized feedback on dietary